ABSTRACT OF

A Lecture

ON THE

PRODUCTION OF ANÆSTHETIC SLEEP IN PATIENTS SUFFERING FROM GRAVE CONSTITUTIONAL DISORDERS.

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THE exigencies of modern surgery frequently render it necessary to produce unconsciousness from pain during the performance of operations upon patients suffering from grave constitutional conditions. When called upon to administer an anæsthetic to a patient thus afflicted, it is desirable, in the first place, that we should make ourselves fully acquainted with the morbid condition which is present, and, in the second place, that we should select that anæsthetic and that method of administering it which would be most applicable under the special circumstances of the case. It is hardly necessary for me to point out that, whilst a considerable amount of danger may be incurred by the haphazard employment of an anæsthetic, the risk to life, so far as the performance of the operation is concerned, may be very materially lessened by the exhibition of that agent which is most suited to the particular case. Experience has shown that, for general purposes, ether, preceded by nitrous oxide, is the best anæsthetic. But it not infrequently happens that cases present themselves in which the production of unconsciousness by means of nitrous oxide and ether would be accompanied or followed by the most undesirable consequences, whereas the administration of some other anæsthetic—e.g., chloroform or the A.C.E. mixture—would be attended by eminently satisfactory results. During the past few years I have taken careful notes of every instructive and important case which has come under my care, and as space will not permit me to quote in detail individual cases, I have embodied in the following remarks the main conclusions which I have drawn from a careful review of the facts at my disposal. It is not my intention to take into consideration every grave constitutional affection from which patients may be suffering when about to undergo surgical operations. I shall deal, therefore, with those conditions only which are most commonly met with in hospital and other practice.

GROUP 1. *Asthenia; Collapse.*—I would include in this group all those cases in which a condition of extreme prostration has become established. As familiar examples I may mention the following:—Cases of *acute and chronic intestinal obstruction; advanced œsophageal or pyloric stricture; prolonged suppuration with hectic; profound cachectic or anæmic states*, from whatever cause arising; *recent and profuse loss of blood;* &c. Generally speaking, ether is the best anæsthetic in cases of this class. The pure anhydrous ethylic ether should be employed, and should be *very gradually* administered from a cone or folded towel—i.e., with plenty of fresh air. The asphyxial element which is introduced by the use of Clover's or Ormsby's inhaler is very deleterious in asthenic states of the system. I cannot speak too highly of the merits of pure ether, administered as described, in these cases. I have employed it for patients whose vital functions have become reduced to the lowest possible ebb, and always with the most satisfactory results. The stage of excitement and tonic spasm so common in stronger persons is usually feebly represented, or even absent, and a small quantity of the anæsthetic will be found to suffice. Almost equal in merit to pure ether for such cases is the A.C.E. mixture, which, if freshly prepared and given gradually by means of a drop bottle and Skinner's mask, produces admirable results. Nitrous oxide cannot be recommended for these patients, either as a separate anæsthetic or in combination with ether, for the function of respiration, already weakened by reason of the feeble innervation of the patient, is prone to become more and more shallow, and to cease from sheer paralysis of the nervous mechanism. Lastly, the administration of undiluted chloroform is not advisable in patients of this group, unless special indications exist; for the stimulant effect of the drug is far less than that of ether, and a comparatively small dose may, even in experienced hands, produce alarming or fatal cardiac depression. Diluted with from one-fifth to one-eighth of pure alcohol, and administered by Junker's inhaler, there is far less risk than under other circumstances, and should the asthenic state of the patient be complicated by any affection of the air-passages, this would be the most appropriate anæsthetic to employ. In April of the present year I anæsthetised at Charing Cross Hospital a patient about fifty-five years of age, for the operation of gastrostomy. He had malignant disease of the œsophagus, and apparently also was the subject of pulmonary fibrosis. Extreme emaciation and asthenia were present. I administered in this case chloroform, diluted with one-fifth of alcohol, by means of Junker's inhaler, and the anæsthesia, which was maintained for three-quarters of an hour, was of a very satisfactory nature. But whether ether, the A.C.E. mixture, or chloroform with alcohol be used, care must be taken to narrowly observe the pulse, if possible at the wrist, throughout the administration. It is unnecessary in most cases to secure persistent abolition of the lid reflex; an occasional glimpse of this or some other reflex phenomenon may be advantageously allowed. When once complete anæsthesia has become established, very little of the anæsthetic will be subsequently needed. The head should be kept low, and the lower jaw pushed well forward, to allow free ingress and egress of air. The colour of the lips should be noted, and the respiration listened to with unremitting attention. Failure of respiration in patients of this class is frequently, perhaps usually, preceded by symptoms of cardiac depression. In one such case which came under my observation, alarming symptoms were produced by the unexpected loss of a large quantity of blood upon the operating table, and I was able to note the sequence of events. Firstly, the pulse at the wrist became feebler and feebler, and then ceased; secondly, pallor became extreme; thirdly, the respiration, which was still maintained, became increasingly weaker; and, fourthly, no respiratory movements could be detected. Flicking the front of the chest with a wet towel was immediately followed by respiratory action, and the pulse again became perceptible at the wrist. In patients who are the subjects of advanced hectic at the time of operation, as well as in those whose heart's action has become enfeebled and hence accelerated by exhausting disease, the pulse usually remains rapid throughout; and if the anæsthetic be pushed unduly, symptoms of the gravest kind are liable to arise. Very little may be sufficient in cases of this group to upset the functions of the respiratory centres, already exhausted by malnutrition. An anæsthetic, more especially ether, given in concentrated doses, might readily produce sudden paralysis of the heart or respiration, or both. Most hospital surgeons must have met with cases of strangulated hernia and other exhausting diseases in which the patient has died either immediately before or during the operation, and although in many instances other causes than the administration of the anæsthetic may have been at work, it is certain that the incautious employment of a drug such as ether or chloroform in such cases has not infrequently proved fatal.

GROUP 2. *Morbus Cordis.*—Although the existence of heart disease does not contra-indicate the employment of a general anæsthetic, it is desirable that we should exercise every care when called upon to anæsthetise patients suffering from valvular or other cardiac affections. The most important point to determine is the presence or absence of bronchial or pulmonary œdema and of pleural effusion as secondary results of the valvular mischief. There are, of course, many cases of morbus cordis in which the pulmonary circulation has suffered but little in the course of the malady; whilst in other instances, either from inability of the right heart to maintain the requisite tension in the pulmonary arterioles, or from the backward pressure of an over-distended left heart, or from a combination of both of these causes, such engorgement and œdema exist that the choice of the anæsthetic must be regulated rather by the pulmonary than by the cardiac symptoms. If after careful auscultation no evidence of pulmonary œdema be detected, the A.C.E. mixture or pure ether, administered from a cone, will be found to be most

suitable. I have placed the A.C.E. mixture first, because with it I have anæsthetised patients suffering from nearly every form of heart disease, and I can thoroughly recommend it for all cases in which there is an absence of pulmonary congestion and œdema. The objections which have been raised against the use of mechanical mixtures of anæsthetics are not so weighty (at all events in the case of the A.C.E. mixture) as they would at first sight appear to be. It is true that the rates of evaporation of alcohol, chloroform, and ether are distinctly different; and in those mechanical mixtures which produce an anæsthesia which is due as much, or almost as much, to ether as to chloroform, such an objection might be a serious one. But with the A.C.E. mixture this is not the case. The anæsthetic influence of the small quantity of alcohol in the mixture may be disregarded; whilst that of the ether can only be but slight, seeing that a large quantity of the latter agent is necessary to produce anæsthesia when administered with a copious supply of air. The A.C.E. mixture may, indeed, be regarded as producing its anæsthetic effect chiefly by reason of the chloroform it contains. But in consequence of the dilution of the latter with miscible fluids, and by reason also of the stimulant effects of those fluids, the mixture is, *cæteris paribus*, far safer than chloroform. Not long since I was asked to anæsthetise a lady who had had valvular disease of the heart for years. The history and stethoscopic examination went to show that there was old-standing mitral stenosis; but the dilated and hypertrophied right side had obviously succeeded in warding off pulmonary œdema. The pulse was intermittent and irregular; the right heart bulged into and pulsated in the epigastrium; and murmurs indicative of advanced mitral stenosis were present. The operator was about to remove the uterus and its appendages *per vaginam*. I selected the A.C.E. mixture, which I gave with great caution. Hurry in such cases as these should always be avoided, and the anæsthetic given in small quantities at a time. The pulse became steady under the anæsthetic, and once or twice fell to 50 beats per minute during the operation. The latter lasted an hour and a quarter. Not much blood was lost, and the anæsthetic was tolerated well throughout. The A.C.E. mixture is not only well borne in valvular disease, but also in those cases in which there is every reason to believe that fatty degeneration of the heart is present. It is common to meet with patients past middle life, and inclined to obesity, whose vascular systems, either from alcoholic habits or from other causes, have undergone profound degenerative changes; the arteries are thickened, the pulse is weak, the heart's action is feeble, halting, and irregular, and hepatic disease is usually present. Now, in patients of this type there is no better anæsthetic than the mixture alluded to. Ether administered in a Clover's or Ormsby's inhaler is badly borne; and chloroform is best avoided unless bronchial mischief or pulmonary congestion is present. Should ether be selected as the anæsthetic in cardiac disease, it may, in many cases, be safely preceded by nitrous oxide, or administered from the first by Clover's inhaler. In uncomplicated mitral regurgitation, for example, notice need hardly be taken of the valvular condition, and ether may be given as in ordinary cases. But if the heart be acting feebly and irregularly, and there be evidence of extensive valvular disease, ether should not be administered by Clover's method, but should be given gradually from a cone or towel. If it be found, after commencing the administration of ether (or the A.C.E. mixture), that cyanosis and feeble or embarrassed respiration are produced, no time should be lost in changing the anæsthetic to chloroform. Should signs of pulmonary engorgement be present, chloroform, with or without a small quantity of alcohol (one-fifth to one-eighth), should be preferred to the A.C.E. mixture or ether. Chloroform is well borne in morbus cordis; but care must be exercised in its administration. As already mentioned, cases of morbus cordis with pulmonary symptoms really resolve themselves into pulmonary cases, and the administration of anæsthetics in such cases will be considered below.

GROUP 3. *Functional and Organic Diseases of the Brain.*—We may be called upon to anæsthetise patients who are more or less unconscious from the presence of some intracranial lesion. Cases of cerebral *tumour*, *abscess*, and recent or old-standing *depressed fracture of the skull*, have, within the past few years, been frequently and successfully dealt with by operation. Moreover, it is occasionally necessary to administer an anæsthetic to a patient with cerebral disease, not for the relief of the cerebral affection, but for other surgical procedures. As examples of the latter class of case I may mention patients suffering from one or other of the numerous forms of *insanity*, *chronic epileptics*, &c. Whatever may be the nature of the operation, the greatest care will be necessary in conducting the administration. If well-established coma be present, no anæsthetic need, of course, be administered; but if reflex action be more or less intact, some anæsthetic must be given in order to secure the necessary degree of quietude. Semi-comatose patients require but a small quantity of an anæsthetic; and the feebler the pulse and respiration, the greater need will there be for watchfulness and caution. Chloroform is preferable to ether in patients suffering from advanced cerebral disease, because of the frequency with which pulmonary œdema is present in such cases; but should the respiration be unimpaired, ether may be given or the A.C.E. mixture employed. In cerebral surgery chloroform is certainly preferable to ether. The latter anæsthetic has, however, been used in many cases, and, so far as the safety of the patient has been concerned, with good results. In operations upon the brain or its membranes, chloroform possesses these advantages over ether: in the first place, vascularity is far less than when ether is used; and in the second place, should any pulmonary engorgement previously exist or arise during the operation, the vapour of chloroform will necessarily be tolerated better than that of ether. The practice of giving patients about to undergo an operation upon the brain or its membranes a subcutaneous injection of morphine just before the administration of the chloroform is an excellent one in those cases in which the functions of the medulla have in no way become impaired by the progress of the cerebral lesion. It is a noteworthy fact that if chloroform be preceded by even a small dose of morphine very little of the anæsthetic will be needed to secure quietude when once deep anæsthesia has been produced. In those cases in which, from the progress of the cerebral disease, respiration is feebly or inadequately performed, I should consider the exhibition of morphine fraught with the gravest danger.[1] In many if not most cases of advanced cerebral diseases, patients tend to die from an interference with the activity of the respiratory centres; and any sedative, such as morphine, might help to accelerate the fatal event.

In connexion with this branch of my subject I may briefly refer to one or two cases. Early in the present year I anæsthetised at the London Hospital a patient who presented symptoms of meningitis dependent upon disease of the middle ear. He was nine years of age, drowsy, with contracted pupils, slow feeble pulse, and shallow respiration. There were a few scattered râles at the bases of the lungs. Chloroform was selected, and the patient was satisfactorily anæsthetised by a small quantity of the drug. In such cases as these it is not desirable to lose sight of the lid reflex for any length of time during the administration of the anæsthetic, provided that the patient remains quiet and free from reflex cough or movement during the operation. At about the same time that this case occurred I had to anæsthetise a patient at Charing Cross Hospital who had been suffering from unilateral epileptiform attacks dependent upon a compound comminuted fracture of the skull, which had occurred some months previously. The skull was to be trephined. The patient was a strong, thickly-set man. A fifth of a grain of morphine was given subcutaneously five minutes before I commenced the administration of the anæsthetic (chloroform). I experienced some difficulty at first in producing anæsthesia, the patient taking a very large quantity of chloroform. Mr. Victor Horsley, who was present on this occasion, informed me that he had met with a similar case, in which it was found almost impossible, after morphine, to narcotise the patient with chloroform. In my case, however, after from seventeen to twenty minutes anæsthesia was produced, and the patient breathed deeply and stertorously. For the remainder of the time I used very little chloroform indeed. I allowed the lid reflex to reappear and to remain, and the patient passed into a state of analgesia, rather than anæsthesia, for he subsequently informed us that he was conscious of the performance of a considerable portion of the operation—could hear us speak, &c.,—but felt absolutely no pain. The operation lasted one hour and three-quarters. The pulse remained soft and about 70 to the minute; the respiration regular and slow, sometimes falling to 9 per minute. In

[1] See Practitioner, August, 1887, p. 103.

addition to these two cases, I could quote, did space permit, many other examples. One of the most difficult and anxious cases ever entrusted to my care was that of a young lady who for many years had been confined to her bed, and had become the subject of advanced imbecility. The limbs were flexed upon the trunk, and there was loss of control over the evacuations. Stomatitis dependent upon many carious teeth was present, and was thought to be the cause of almost constant moaning on the part of the patient. On more than one occasion, probably in consequence of defective sensibility of the larynx, blood from the spongy gums had accumulated at the back of the throat, and nearly destroyed life. Many teeth and stumps were to be extracted, and it was necessary that the patient should be kept quiet during the operation. As the lungs seemed free from engorgement, I gave nitrous oxide and ether, and carefully prevented any blood from getting into the larynx. In this case the chief risk lay in this quarter, but with due care the danger was prevented, and the anæsthetic was taken well.

GROUP 4. *Affections of the Respiratory Passages and Pleuræ.*—In this group may be included the following: *obstructive conditions of the air-passages producing dyspnœa*—such, for example, as aneurysm pressing upon the trachea or main bronchi, tracheal stenosis, laryngeal diseases with stridor, &c.; *advanced chronic bronchitis and emphysema*, with secondary cardiac changes; *chronic pneumonia; phthisis* in its middle or late stages; *pulmonary congestion and œdema* arising in the course of other diseases; *hydrothorax and pleuritic effusion; chronic pleural diseases* with secondary lung changes; and *empyema*. In all of the above-mentioned morbid conditions the patient's respiration becomes more or less seriously affected, and great care must be exercised in administering an anæsthetic. Chloroform is the most appropriate agent for producing anæsthetic sleep in patients of this group. Its vapour is less irritating than that of ether, and less likely to increase any catarrhal condition that may be present; whilst the stimulant effect which it exerts upon the respiratory movements is far less than that produced by ether. The respiration of a patient under ether, especially if the latter be given with a Clover's or Ormsby's inhaler, is deeper, quicker, and more liable to alterations in rhythm from spasm of muscles directly or indirectly concerned in breathing, than that which is met with under chloroform. From these, as well as from other considerations, it will be obvious that there are serious objections to ether in the class of cases under discussion. The greatest distress in breathing may be produced by the administration of ether to patients with bronchial, pulmonary, or pleural diseases. In pulmonary engorgement and œdema, whether arising in association with local morbid states or from limited expansion of the lungs dependent upon abdominal distention or from other (general) conditions, ether and the A.C.E. mixture are both contra-indicated. Cases of old-standing pleural disease, even though one lung be completely crippled, tolerate chloroform very well; in some cases there may be no thoracic expansion whatever, the breathing being wholly abdominal, and yet threatening symptoms are rarely met with when this anæsthetic is used. Whenever it is practicable, the patient should lie on his affected side; but I have known chloroform well borne even when patients have been lying the reverse way, with the affected side uppermost. Cyanosis is readily produced in these latter patients if ether be employed. In patients suffering from dyspnœa dependent upon a narrowing of any part of the air-passages,[2] the production of anæsthetic sleep is likely to be attended by considerable risk to life. This is especially the case if any bronchitic or pneumonic condition should coexist. In these patients natural sleep may be attended by cyanosis; indeed, it is sometimes impossible for the sufferer to obtain more than a few snatches of rest at a time. The greatest caution should be observed in producing general anæsthesia in patients thus afflicted. When natural sleep is attended by cyanosis or is productive of urgent dyspnœa, no anæsthetic can with safety be administered. Still, in cases, for example, of rapidly enlarging innominate aneurysm, the choice may lie between allowing the patient to die of asphyxia and asthenia, and tying the carotid and subclavian arteries. The risk should, in such a case, be explained to the patient or his friends, and only moderately deep anæsthesia should be produced. Respiration becomes in these patients a more or less voluntary act, and with the abolition of consciousness those muscles which have hitherto been instrumental in keeping the sufferer alive are no longer called into action, and the patient is made to fall back upon his ordinary muscles of respiration, which may be quite inadequate for the maintenance of breathing when an obstruction to the entry of air exists. Chloroform should be the drug selected, and it should be administered very slowly and cautiously. It must be borne in mind that, should breathing fail, very little good may result from artificial respiration, because it may be impossible to force air past the obstruction. Tracheotomy would of course save the patient if the position of the obstruction allowed of its performance.

GROUP 5. *Renal Disease.*—It is practically impossible for administrators of anæsthetics, especially in hospital practice, to ascertain the presence or absence of renal disease in most of the cases that come under their care. It is nevertheless desirable to make inquiries in suspicious cases, for ether has been known to increase pre-existing nephritis, and in some cases uræmia is said to have resulted from the use of this anæsthetic. It must be borne in mind that most patients with Bright's disease suffer sooner or later from œdema, not only of the extremities but also of the lungs and pleuræ; and such patients might, apart from their renal condition, be seriously affected by ether. My own experience in this particular class of case has not been sufficient to enable me to corroborate the observations of others. I can only recall one case of advanced renal disease. The patient was a lady, aged about forty, who had become extremely anæmic, partly from the existence of chronic Bright's disease and partly also from uterine hæmorrhage. I was informed that the aortic disease which complicated the case was due to atheromatous valvular changes which were secondary to the renal affection. No pulmonary or pleural œdema appeared to be present. I decided to give the A.C.E. mixture, and its administration was attended by the best results. The feeble and diseased heart, coupled with the absence of pulmonary œdema, seemed to me to render the administration of a small amount of ether admissible in this case.

In conclusion, I would venture to point out the fallacy of employing one anæsthetic for all cases. Such a practice is especially likely to be attended by disastrous consequences in those patients to whom I have referred. The administration of an anæsthetic is too often regarded as an unimportant matter; but it is desirable not to fall into the error of adopting such a view. It should rather be our aim to bestow as much attention as time will allow to the examination of patients about to be anæsthetised, and, should any morbid condition be present, to exercise every precaution in producing surgical anæsthesia. A few moments' consideration in selecting the anæsthetic will usually lead to satisfactory results; whilst the indiscriminate employment of anæsthetic drugs may not only render it difficult to produce the necessary quietude for the performance of operations, but may even imperil the lives of the patients entrusted to our care.

[2] See Practitioner, loc. cit.

ON CARDIAC DEGENERATION FROM THE PRESSURE OF ABDOMINAL TUMOURS.

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THERE are few things more striking in the advance of our knowledge of cardiac disease than to look back only forty years, and see from the writings of that day the immense importance ascribed to "murmurs." Immediately a bruit was heard, every effort was made to accurately locate it, and the patient became a doomed man. Murmurs were everything, and they alone decided the diagnosis, the prognosis, and the treatment. But pathology revolted against the predomination of a physical sign, and bruits took a secondary place, while the morbid changes in the valves which produced them was held to be the all-important question. Now we have gone a step further; for I suppose that to-day no one regards a murmur as anything but a localising sound indicative of the seat and character of the mischief, while the problem to be solved in any given case

has become, What is the condition of the heart's muscle? Is it strong enough to overcome the resistance of stenosis—the distending inertia of incompetency? Will the wall hypertrophy, or will it allow its cavity to become dilated? There is not the slightest doubt that in this we have and are advancing in knowledge, and that we are justified in theory and practice by neglecting the significance of murmurs and concentrating our efforts, diagnostic and therapeutic, on the condition of the cardiac parietes. But the advance is slow, for symptoms show little and physical signs teach less upon this matter. Therefore no apology can be needed for any attempt to throw light, however feeble, however aside the main issue, upon degenerations of the heart. Among these the form known as fatty degeneration has for seventy years been recognised and accurately described. In the most recent works the following are laid down as the causes of this disease. *Sex:* The disease is at least twice as frequent in men as in women. Quain found the proportion 4 to 1; Ormerod about 3 to 1; Hayden more than 2 to 1. *Age:* It is much more common in the second than in the first half of life. About three-quarters of the cases occur after forty years of age. *Habits of life* have probably *per se* little influence in causing the degeneration. It is more common among the lower classes than among the upper. *Depressing emotions* are believed by Quain to predispose to fatty degeneration. *Nutritive changes* have apparently little effect. Quain found that the disease occurred with almost equal frequency in fat and in thin persons. Anæmia, both quantitive and qualitative, may cause it. *Wasting diseases* were shown by Ormerod to have as one of their consequences fatty degeneration of the heart—phthisis, cancer, and chronic suppuration frequently causing it. *Toxæmic influences*, such as the various acute febrile conditions, specific and non-specific; certain poisons, such as phophorus and alcohol; and long-continued pyrexia from whatever cause. *External pressure*, by the contraction of lymph or calcified plates, Walshe has shown may produce this condition, or *interstitial pressure* by syphilis or other new growths in the heart walls. *Local anæmia* from vascular obstruction caused by atheromatous or other changes in the coronary arteries was pointed out by Quain to be a frequent cause (thirteen out of thirty-three cases) of the degenerative change. *Congestion or inflammation* of the cardiac muscle, or its *hypertrophy*, has also been shown by recent observers to lead in some cases to molecular degeneration. Beyond these causes I have not been able to find any others given in modern medical literature. What I desire now to call attention to is the fact that fatty degeneration of the heart may result apparently from the upward pressure of intra-abdominal tumours, as shown in the following cases.

CASE 1.—Patient aged thirty-nine. Married eleven years. Has had seven children and one miscarriage. Till three years ago always enjoyed good health. Since then has had pain in the right side of the abdomen, and has been growing very stout. For the last year has suffered much from dyspnœa and palpitation on the slightest exertion. On examination the abdomen was found to be large and protuberant, its walls tense, and its cavity evidently occupied by an ovarian cyst. The lower ribs were bulging forwards. The heart was displaced upwards; its sounds were dull—markedly so,—and the first sound at the apex, and especially over the right ventricle, was occasionally almost inaudible. The impulse was very feeble and diffused. The pulse was small, weak, and compressible; the slightest exertion increased its rapidity greatly. The ordinary operation for ovariotomy was performed. The dyspnœa and palpitation were at once relieved, but the patient rapidly sank. The pulse became very rapid—100, 120, 150 in the minute. There was no marked rise of temperature—never, in fact, above 100° F. But she died suddenly on the third day after the operation—died just as she would have died forty years ago, when Bright wrote of these cases, "Some state of unexpected collapse, for which no reason can be assigned, takes place, and the patient dies." Modern writers, we find, quote this statement, and, in astonishment, add that they "have seen such cases" themselves. They will even quote them to prove their words. For nowadays, taught and trained by the great pioneers of abdominal surgery, guarded by their failures, strengthened by their successes, recovery after ovariotomy seems to them almost a matter of course in 90 per cent. of the cases; and therefore they are astounded that with this grand advance death should still result in some cases just as it resulted in the dark despairing days of forty years ago, and so they close the book and say, like Bright, "No reason can be assigned for this unexpected state of collapse." But I hope to be able to show that a reason *can* be assigned, and that the examination of the heart will at once reveal it. The necropsy of this patient, for example, showed the presence of a little peritonitis, and nothing else abnormal, in the abdomen. But on opening the chest the lungs were found congested, œdematous, and their bases carnified and compressed, as perhaps one might almost expect from the long-continued upward pressure to which they had been subjected. The heart was rather large and flabby; the valves and coronary vessels were healthy; the walls of the left side were of normal thickness; but the parietes of the right auricle and ventricle were extremely thin—the latter, in fact, being only the thickness of cardboard. The cardiac substance generally was yellowish, soft, and friable under the finger, giving a greasy film to the knife when scraped. On microscopical section the muscle bundles seemed to be more or less filled with small dark spherical bodies, or larger and smaller distinct oil-globules, whilst they were widely separated from each other by bands of fat-cells. In short the heart muscle was in an advanced state of fatty degeneration and fatty infiltration, as is well shown in the accompanying drawing. And this degeneration everyone knows is a common cause of "unexpected collapse" and death. But I will give in short detail notes of those cases I have examined post mortem in which the history

and the heart degeneration were similar to the one I have just narrated.

CASE 2.—E. C——, aged forty-eight, a porter's wife. Married at twenty-two; had had four children and one miscarriage. Had generally enjoyed good health. Had only noticed the abdominal swelling for two months before admission into the Hospital for Women. It proved to be a clear case of ovarian cystoma. She was operated on, and with great difficulty—owing to firm and extensive and old adhesions—double ovariotomy was performed. After this the temperature slowly rose to 102° F.; but the pulse, which had only once previously been noted, and was then 106, now rose steadily to 120, 130, and 144 per minute, and the patient died suddenly on the second day after the operation. At the post-mortem examination there was nothing in the abdomen to account for death. The heart was found healthy as to its valves and nutrient vessels, except for a little old thickening of the mitral cusps; but the walls of the right cavities were extremely thin, and the microscopical sections showed marked fatty infiltration and some degree of fatty degeneration throughout the cardiac muscle, but most marked in that taken from the right side.

CASE 3.—Patient aged forty-one years. She had been married for fifteen years; had had five children and no miscarriages. She could not give the exact duration of her illness, but the abdomen had been much swollen and heavy for many months. The disease was evidently some cystic ovarian change, but the patient's general health was so bad that operative measures were deferred. The patient was about to be sent to the country for change of air, when she suddenly fell down one day while walking across her room, and, on being helped into bed, was found to be in a moribund

state, and died in a few minutes. At the post-mortem there was found to be encephaloid cystic disease of the ovary and old calcareous cavities in both lungs. The heart's walls were very soft, and the muscle markedly fatty throughout.

CASE 4.—Patient aged forty-four. Married twenty years; never pregnant. Had noticed her abdomen growing in girth for some time, and had had marked distention for the last six months, and severe pain for at least nine months. The diagnosis was clear, and the ordinary abdominal incision made. It was then found that the cyst was so embedded in the pelvic tissues and adherent to the intestines that its complete removal was quite impossible. It was therefore tapped, and its edges stitched to the abdominal wall and drained. She progressed slowly but well, and quite recovered from the operation. Five weeks afterwards she had an attack of pleurisy, and died rather suddenly on the fortieth day after the operation. The heart was found to be the seat of marked fatty infiltration, and in parts there was distinct fatty degeneration of the muscular fibres.

CASE 5.—Patient aged thirty-seven. Had been married for twenty years; no children, but one abortion. Had been suffering from marked abdominal swelling for the last two years. The abdomen was greatly distended; the impulse of the heart was at a point between the third and fourth ribs, with heaving but feeble action, and its sounds most markedly dull in tone. The dyspnœa was extreme, and demanded relief, but her general health was so bad that it precluded ovariotomy; she was therefore tapped, and seemed relieved for a short time, but died very suddenly on the third day afterwards. A double multilocular ovarian cyst was found completely bound down by extensive and firm adhesions. The cardiac muscle was markedly degenerated and infiltrated with fat-cells.

CASE 6.—Patient aged thirty-seven; single. Had noticed considerable and increasing swelling of abdomen for more than twelve months. The case was a straightforward one. Ovariotomy was performed easily and quickly. The woman seemed much relieved and better; but on the eighth and ninth days fainted several times, and suddenly died in the last of these attacks. The wall of the right ventricle was found to be very thin—barely the thickness of cartridge-paper, in fact—and in a state of extreme fatty degeneration. The muscle of the left side was, to a less degree, also involved in the same change, and showed a typical appearance of fatty infiltration.

Case 7.—Patient aged forty-three. Married eighteen years; two children and two abortions. The abdomen had been markedly distended for at least eighteen months. Ovariotomy was performed with some difficulty, owing to the tumour being multilocular and having many adhesions. She recovered completely, and was about to leave the hospital, when on the twenty-second day after the operation on rising from bed she fell back, and was found to be dead. The cardiac muscle was in a general state of advanced fatty degeneration.

Case 8.—Patient aged fifty-three. Married; one child. The abdomen had been considerably swollen for at least five months. Ovariotomy was performed, followed by an extreme amount of shock and very slow reaction from the anæsthetic. The pulse gradually increased in frequency, and she died rather suddenly on the third day after the operation. The right ventricle wall was found to be very thin, and the heart muscle generally very fatty.

CASE 9.—Patient aged forty; single. Marked swelling of the abdomen had existed for two years. The diagnosis was rather obscure. An exploratory incision was made, which revealed a malignant cystic growth of the ovary, with secondary disease in the omentum. Nothing further was done. She recovered completely from the operation, but sixteen days afterwards died rather suddenly. The heart's muscle was in a state of marked fatty degeneration and infiltration, the right ventricle being very small and thin-walled.

CASE 10.—Patient aged thirty-eight. Married eleven years; never pregnant. The swelling in the abdomen had been noticed for fourteen months. Ovariotomy was performed. The patient went on very well to the fifth day after the operation, and then sank rapidly, dying in a few hours. The cardiac muscle was found to be the subject of the fatty change, though not to an extreme degree.

CASE 11.—Patient aged fifty-six. Married thirty years; four children and one miscarriage. The abdominal swelling had been very marked for more than six years. An exploratory incision was made, and an ovarian cyst with most extensive adhesions was found and tapped. The patient showed signs of faintness on being raised, and finally died suddenly seven days after the operation. The cardiac muscle was here found to be universally degenerated, in parts to an extreme degree.

CASE 12.—Patient aged thirty-five. Married nine years; three children. The abdominal swelling had been noticed for the last seven months. Ovariotomy was performed. The patient never thoroughly rallied from the anæsthetic, became semi-comatose, and died on the second day. The walls of the right ventricle and auricle were very thin, and their muscle somewhat degenerated and very markedly infiltrated with fat-cells. No marked degenerative change, but some amount of fatty infiltration was found in the muscle of the left heart.

CASE 13.—This was, curiously, like the preceding one. The patient was thirty-two years of age; had been married eight years, and had had one miscarriage, but no children. The abdominal swelling had been great for twelve months. Ovariotomy was performed, but the patient gradually sank, the pulse becoming more and more rapid. She died on the seventh day. Here, again, the right ventricle was almost alone affected by the degenerative change, but there was considerable fatty infiltration of the cardiac muscle on the left side.

The last two cases, taken together, are very instructive. The average age was 33·5 years; the average duration of the swelling about ten months; that is to say, both the patients' ages and the length of their illness were considerably less than those of any other case narrated, and in these two the degeneration was not only less, but was also more localised than in any of the others.

CASE 14.—Patient aged thirty-seven; single. Swelling noticed for thirteen months. Ovariotomy was performed. Patient never rallied, and died the next day. The right ventricle was very thin. The muscle generally was somewhat degenerated.

CASE 15.—Patient aged sixty-five. Married thirty-two years; had had three children. Abdominal enlargement had been observed for five years. Ovariotomy was performed. She rallied slowly and badly from the operation, and died suddenly the next day. The cardiac muscle of both sides was most markedly degenerated, more so even than in Case 11; and these two cases, it is noteworthy, are the two oldest of the series, their average age being 60·5 years, and the average duration of their illness five years and a half; that is to say, these two patients, the oldest in age and the longest in suffering, presented the most marked examples of the degenerative change.

CASE 16.—Patient aged fifty; single. The swelling of the abdomen had been noticed for seven months. The general health did not allow of operative interference. She died suddenly, and the necropsy revealed cystic carcinomatous disease of the ovary and marked fatty degeneration of the cardiac muscle.

(To be concluded.)

NOTES ON THE

PRACTICAL TREATMENT OF SYPHILIS, CHANCROIDS, GONORRHŒA, AND GLEET.

BY FREDERICK W. LOWNDES, M.R.C.S. ENG.,
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IN two former papers published in THE LANCET within the last few years I gave notes of some cases of sloughing sores which had occurred in hospital and private practice, and the results of the treatment of orchitis as practised in the Lock Hospital for many years past, being the mode suggested by Mr. Furneaux Jordan, of Birmingham, in 1869. In this paper I purpose giving briefly some notes on the treatment, general and local, of syphilis, chancroids, gonorrhœa, and gleet. While it is somewhat difficult to write or suggest anything original on so well worn a subject, I am not without hopes that some new and useful hints may be found. An experience of twelve years at the Liverpool Lock Hospital, and of five years at the Seamen's Dispensary, gave me abundant opportunities of practically studying these

complaints, and of trying the many various remedies which have been from time to time suggested. In private practice one has opportunities of seeing these cases at an earlier period than in hospital or dispensary practice, and some of the most severe and even fatal cases of syphilis have been in private practice.

Treatment of Chancres and Chancroids by Iodoform.—The value of iodoform as a local remedy is generally acknowledged, the difficulty in its use being its very disagreeable and penetrating odour. The tonquin bean, while to a certain extent remedying this, has itself so strong and peculiar an odour as to attract almost as much notice as that it is intended to conceal. I am indebted to a local chemist for two very useful hints. One is to mix a few grains of very finely powdered coffee with the also finely powdered iodoform. This will be found to act as a most perfect and pleasant deodoriser; it may be kept for use in a stoppered bottle, or a perforated box like a pepper-box. The other hint is that a very few drops of ol. rosmarini, rubbed up with the ung. iodof. (B.P.), will effectually disguise the iodoform smell. The proportion is about five drops of the oil to half an ounce of the ointment. I have some by me which was made several months ago, and the only odour is that of rosemary, somewhat faint.

Local Mercurial Applications.—In addition to the old black wash, which still holds its own as a favourite application, especially for chancres, I find the blue ointment diluted with an equal, double, or treble quantity of benzoated lard a very useful application, especially when the sore is of considerable extent. In these cases the local application of the ointment will often suffice to afford constitutional treatment without any internal administration of mercury. Where ther i much irritation, a pow der consisting of equal parts of grey powder and oxide of zinc, each rubbed into a very fine powder, will be found an excellent application, sometimes healing a large angry-looking sore in a very short time. I seldom find it necessary to apply the strong escharotics often recommended in text-books.

General Mercurial Treatment.—When I was first appointed to the Lock Hospital in 1875, I found that the practice for many years past had been to give two grains of grey powder with three grains of Dover's powder in the form of powder, twice a day. Latterly it was given in pills made up with confection of roses. As a general rule, I now order two grains each of mercury and chalk and Dover's powder, and a sufficient quantity of extract of hyoscyamus. The reason for giving the latter is that it makes a better-shaped pill than the conserve of roses, or almost any other extract. When patients complain that the pills cause griping I change them for one with three grains of blue pill and a quarter of a grain of opium. I generally find that these will suffice. I may note that they can be silvered or varnished.

Mercurial Inunction.—That this is the most effectual of all modes of administering mercury, all who have had experience will admit. But it is somewhat remarkable to observe the different modes of using it given by different authors. Thus, one recommends that the ointment be rubbed in in the morning after breakfast; another that it should be done shortly before going to bed; one prefers the naked hand, another prefers gloves; one prefers the mercurial ointment, another the oleate of mercury; and so on *ad infinitum*. I have found the results much more satisfactory in hospital than in private practice, and in cases where there had been much neglect, and the induration was very marked, the benefits were very gratifying. I have found a modified form of inunction very useful in many cases, and have seen no mention of it in any of the text-books. It is applicable in most cases of primary ulcers, especially in cases of phimosis with well-marked induration. My plan has been to wrap a piece of lint, on which about a drachm of the strong mercurial ointment has been spread, round the penis near the abdomen, and to change this every night and morning. With an intelligent patient, and in suitable cases, it acts most satisfactorily, reducing the induration and the phimosis in a very short time. Sometimes I use the ointment diluted with an equal or double part of benzoated lard. It is somewhat remarkable that the ointment does not appear to irritate the skin of the penis so much as it does that of other parts of the body, and I have never had to discontinue it for this cause. What suggested itself to me was the plan adopted by the late Sir Benjamin Brodie for the mercurial treatment of infants, by wrapping a flannel bandage smeared with blue ointment round the arm or thigh, and renewing it once or twice daily.

Syphilitic Eruptions.—In private practice it is very desirable to effect as speedy a cure as possible of the tell-tale eruptions on the face, wrists, neck, and other visible surfaces, since their probably syphilitic character may be guessed by friends, more especially those who have themselves gone through the same ordeal. In the Lock Hospital there was an ointment used for the erythematous, papular, and scaly eruptions, which, on account of its rapidly curative effects, used to be called by the patients "the magic cream." Its composition was as follows: one part of ammoniate of mercury and three parts of oxide of zinc, mixed and rubbed into a fine powder, with sufficient glycerine and lard to make a stiff cream. I have been told that a few drops of olive oil facilitate the mixture of all these. It is really astonishing how a few applications of this will make a very perceptible rash disappear in a few days. A ready method of preparing the above is by mixing one part of ammoniated mercury ointment with three parts of zinc ointment, each being fresh, and adding a little glycerine.

Mercurial Vapour Baths.—The value of these as an alternative to other modes of mercurial treatment, or even in preference to them in some cases, is generally admitted. I have found them especially useful in some of the more obstinate forms of secondary syphilitic eruptions, especially those of a scaly character. In the Lock Hospital there were vapour baths in both the male and female wards, calomel being the mercurial used; and these baths were in frequent use, the patients taking to them very kindly. In private practice I have often ordered them with benefit, but I find much reluctance on the part of patients to use them at home for reasons that must be obvious; and there seems to me some risk in patients going to and from public baths, especially in cold weather.

English and Continental Treatment.—The treatment of venereal diseases, and more particularly syphilis, is, more than that of any other disease in this country, carried out under difficulties. Patients expect to be treated and cured under circumstances most unfavourable both to themselves and their medical attendants. In many cases where rest at home and cessation of all work is all but absolutely necessary, it is out of the question. The sympathy, kindness, and care of relatives and friends cannot be had; everything has to be done in secret and on the sly. For those who can afford to leave home and pursue their treatment at Aix-la-Chapelle or elsewhere the case is easy enough. But there are many patients who must remain and be treated in this country. Is their cure any less complete because they have never had the advantage of Aix-la-Chapelle treatment? I fail to see that it is, and in this matter I think English surgeons may speak feelingly and with reasonable grounds for complaint. Let me give one out of many an illustrative case. A young gentleman was sent to me by another practitioner who declined the treatment of such cases. The patient was suffering from a scaly rash on his face, which was very suggestive of syphilis, but was limited to the face and was irritable; there was no history of syphilis or any other indications of that disease. I treated him, and with benefit, but his father insisted on his going to Paris, as the only place where the disease could be properly cured! It seems to me that in this way much injustice is done to practitioners in this country, who have quite as good opportunities of studying syphilis and allied diseases as their continental brethren. That the benefits of a visit to Aix-la-Chapelle may be and are very great must be freely admitted. But when the change of air and scene, the freedom from daily work, and the rest, are all duly discounted, the mercurial treatment which remains might be equally well followed out in England.

Ulcerated Throat and Tongue.—I have great faith in the chlorate of potash as a local application for these very troublesome forms of syphilis, and in obstinate cases the nitrate of silver or perchloride of mercury; the former solid or in strong solution, the latter in solution, the strength being from two to four grains in eight ounces of water. My colleague, Dr. Bernard, first suggested iodoform combined with starch, in equal proportions, blown on to the affected surface with an insufflator. I have found this a most excellent application in several cases very incurable by ordinary treatment. Patients bear it very well, and do not complain of any disagreeable effects. Where there is much fetor, chlorinate of soda in the proportion of half an ounce of the liquor to eight ounces of water makes an excellent gargle.

Administration of Iodide of Potassium.—In the Lock Hospital we had frequently very severe forms of tertiary syphilis. Married women especially suffered severely from the remote effects of having been infected by their husbands; having also, partly from ignorance and partly from neglect, been improperly treated at first; and the disease, besides being thus allowed to assume formidable proportions, had been also aggravated by poverty and other unfavourable surroundings. Iodide of potassium is too valuable a remedy to be withheld, but it has to be administered very cautiously. We found that the addition of acetate of potash, in doses of fifteen grains, enabled the iodide to be borne much better than by itself. In some cases we have given doses containing as much as sixty grains; but generally from ten to twenty or thirty grains, twice or thrice daily, were enough. Another mode of administration was to give alternate doses of the iodide with iodide of iron; this was found very serviceable in debilitated patients. It is remarkable that the large doses were not followed by coryza, as the smaller doses, such as from three to five grains, invariably were.

Gonorrhœa and Gleet: Specifics.—When I was a student at the Lock Hospital nearly thirty years ago, the usual treatment of gonorrhœa was to commence with an antacid mixture: liq. potassæ., two drachms; tinct. hyoscyam., two drachms; spirit. æth. nit., a drachm and a half; aq. camph., eight ounces; an eighth part to be taken three or four times a day. This was followed by the copaiba paste, made as follows: pulv. cubeb., an ounce and a half; bals. copaib., half an ounce; ext. hyoscyam., and camph., of each half a drachm; theriacæ, q.s. The dose was a piece the size of a nut (filbert) three or four times a day. I have found that this treatment holds its own up to the present day, and in spite of all the various additional modes which have been suggested since. I have seldom found it disagree with patients, and even then a second trial with a smaller dose was more successful. On the other hand, I have been much disappointed with the oil of sandal wood, both as to its efficacy in reducing the inflammation and discharge, and also in its nauseating effects upon patients, even when administered in capsules. I have given every preparation of this oil a fair trial, and my experience is that the old copaiba and cubebs paste is the best specific for the acute stage of gonorrhœa (all the other circumstances being favourable to its administration), and in my hands it has also been found very useful in obstinate cases of gleet.

Injections.—Chloride of zinc is the salt which I have found most useful for injections, beginning with a quarter of a grain to the ounce, and increasing this, if necessary, to half a grain; I never use it stronger than this. Occasionally I change it for the sulpho-carbolate of zinc, two grains to the ounce. The addition of a small quantity of tincture of iodine to the chloride seems to increase its effect. It is, I find, necessary to give the most minute directions to patients as to the manner in which injections should be used, as otherwise they will only irritate the bladder and do more harm than good. I prefer a ball syringe, capable of holding half an ounce, with a leather nozzle; if the patient is directed to hold the penis close to the abdomen with the first finger and thumb of the left hand so as to prevent the injection going past that point, and to syringe gently with the right hand, this will obviate any tendency to irritation of the bladder. Used every four hours, the chloride will reduce a very copious discharge in the course of a few days to a comparatively trifling one, and lead, if persevered with, to a perfect cure. For the more obstinate cases of gleet I have found Easton's syrup very useful, following it with the passage of full-sized metallic instruments. In some very obstinate cases, as already mentioned, the copaiba paste will be found very serviceable.

Seven years ago I read a paper at our medical institution on the diagnosis between chancres and chancroids. The then president (Mr. Reginald Harrison) lamented that I had quoted so much from other authors and given less of my own experience, seeing the valuable opportunities I had. I hope that this will serve as a sufficient apology if the preceding remarks appear egotistical. Nothing could be further from my wish than to appear so, and my object has been simply to give the results of my experience.

WOODHALL SPA, LINCOLNSHIRE.—In connexion with this Spa, situated between Boston and Lincoln, new mineral baths were formally opened on Tuesday last.

SMALL-POX IN MONTREAL: THE STORY OF AN EPIDEMIC.[1]

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PASSING recently through Montreal, during a short visit to Canada, I took the opportunity of obtaining from official sources and by personal inquiry some particulars of the terrible epidemic of small-pox which devastated that city towards the end of the year 1885; and as I am not aware that a full or detailed account of the same has been published in Europe, the facts here narrated may be not merely of interest, but of use in teaching a lesson and serving as a warning to some of our large urban communities, particularly to this our own borough of Leicester.

The population of Montreal, the commercial metropolis of Canada, was estimated in 1885 to be about 167,000; prior to that date no case of small-pox had been met with in the city for some years, the last death recorded being in 1881. Owing to a certain amount of opposition to vaccination in this city the compulsory laws which exist in Canada had for some years past not been put in force; and although public vaccination had been provided since 1876, very little pressure was brought to bear upon parents with respect to it, so that from simple neglect on the part of large numbers of the people, who were really not opposed to the operation, a considerable proportion of the children of Montreal were unvaccinated. On Feb. 28th, 1885, the municipal hospital having been empty for some time, and not ready to receive patients, a man, the conductor of a Pulman train from Chicago, where small-pox then existed, was admitted into the Hôtel Dieu (a large general hospital) suffering from some eruptive fever, very mild in character, and thought to be chicken-pox. He was discharged cured in three weeks, and there is not the possibility of doubt now that this was a mild attack of variola. Two days after his discharge a case of small-pox occurred amongst the servants of the hospital, and shortly afterwards other cases occurred amongst the inmates, and by the middle of April sixteen cases had broken out in this hospital. By this time the municipal hospital for infectious diseases had been prepared and got ready for the reception of patients, and it was determined about the middle of April to dismiss from the Hôtel Dieu all those patients whose condition rendered it possible to send them home in order to thoroughly disinfect and purify the now infected building. Even had the authorities desired, it is doubtful whether this step could have been altogether avoided, as the inmates of the institution were now becoming alarmed by the succession of cases occurring around them, several of which had proved fatal, and, besides, whilst the wards were occupied it was impossible to properly disinfect the building; it would, however, have been a wise precaution to have kept a strict watch on each of these discharged patients. The sequel proved this wholesale discharge to have been an unfortunate proceeding, for amongst the 200 patients thus sent out from the hospital and scattered all over the city numerous cases of small-pox arose, and thus became centres of infection, but until June the number known to the health authorities was not such as to cause much alarm. Seeing that no general system of notification of infectious diseases was at that time in force, doubtless many mild cases were unheard of and escaped observation. Early in June enormous crowds of people were brought together in the public streets by the procession of the "Fête Dieu," and again on the occasion of the funeral of the Roman Catholic Archbishop, and it is suspected that infected persons must at that time have mingled with the crowds, as soon after these events the cases rapidly increased in number, 46 deaths being reported in July and 239 in August. The public mind was now thoroughly aroused, business was beginning to be seriously affected, and the fear of death was laying hold of the people. By the authority vested in the Lieutenant-Governor by the Statutes of Canada increased powers were obtained by the Local Health Authority, increased hospital accommodation was rapidly provided, vaccination was vigorously enforced, and removal to hospital made compulsory when necessary. But by a section

[1] Read before the Leicester Medical Society in January, 1888.

of the lower classes these measures, intended for their good, were opposed, and after an enforced removal to hospital of a patient from a densely crowded neighbourhood a riot ensued, and the municipal buildings, police stations, &c., were attacked, and much property demolished. The rioters were met, however, with superior force, and in a few days they were compelled to submit to the regulations laid down by the Health Committee. To strengthen the hands of the latter, six prominent citizens were added to their number, and a special court of law, the "Health Court," was established for the sole purpose of dealing with offenders against the regulations now in force, and aided greatly in making people understand that the law would have to be obeyed. A special Vaccination Committee was appointed by the Health Committee, and twelve additional vaccination stations provided. By these vigorous measures the epidemic began to abate towards November and December, though so rapid was the spread of the disease, having once become implanted in a virgin soil—i.e., a mass of unprotected persons,—that by Dec. 31st no less than 3164 deaths had occurred from this loathsome disease. Since the year 1876 public vaccination had been provided, but compulsion of it was in abeyance, with the effect that large numbers of children were thus entirely unprotected; and, as the figures below show, it was amongst these that the greatest mortality occurred, presenting as they did so large a field of susceptible material. As evidence that much of this unvaccinated condition had arisen, not from opposition, but from sheer neglect, it is to be noted that such anxiety was shown for vaccination during the progress of the epidemic that the vaccination stations were literally besieged by eager applicants for its protection, and so great were the crowds that the police had to be employed to maintain order and to regulate the traffic. More than 80,000 vaccinations and revaccinations were thus performed within three or four months.

Owing to the absence in the early part of the epidemic of any compulsory system of notification of infection, it is impossible to say how many persons suffered from the disease; a large number were not removed to hospital, but remained in their own homes, and wherever this was known the house was watched by constables detailed for the purpose, and the house placarded in large letters (French and English) "Picote," "Small-pox." At one time as many as 1723 infected houses were thus under surveillance. From the records of the cases admitted into hospital some useful information is obtained. The number of cases admitted was 1332, the total deaths were 418—equal to a mortality of 31·3 per cent., a terrible mortality surely. No such mortality as this is now met with here. (In my own experience, from 1438 cases which have passed through my hands, a death-rate of 15·8 per cent. has occurred, and this may be looked upon as about the average death-rate of vaccinated and unvaccinated cases put together in this country at the present day.) Of these, 805 were unvaccinated and 527 vaccinated; of the 805 unvaccinated, 315 died, or 39·1 per cent.; of the 527 vaccinated, 103 died, or 19·5 per cent. But when the ages of the above patients are analysed, we find that 489 were under ten years of age and 843 above that age. Amongst the 489 there occurred 202 deaths, whilst amongst 843 only 216 deaths were recorded, showing how much more severely the children suffered than the older patients. These figures are from the returns up till the end of 1885. The epidemic had not entirely abated until April, 1886. In May of that year no case of small-pox was known to exist in Montreal. From Jan. 1st, 1886, to the end of the outbreak 142 patients were treated in hospital; of these, 115 were unvaccinated and 27 vaccinated; of the former, 43 died, or 37·4 per cent.; whilst of the vaccinated only 2 died, or 7·4 per cent.

One other fact in connexion with the small-pox hospitals is important: under no pretence whatever was any member of the staff permitted to commence duty in the wards without submitting to vaccination, unless recently vaccinated, and not one case of small-pox occurred amongst the large number employed during the whole course of the epidemic. But further unmistakable evidence is gained from the following mortality returns. Up to Dec. 31st, 1885, there were recorded 3164 deaths from small-pox. Of these, 531 were under the age of one year, 1505 under eight years, 681 under ten years, and 447 over ten years of age: total 3164. Thus, 86 deaths of every 100 were children under ten years of age, the very age at which, in efficiently vaccinated communities, the deaths are always at a minimum.

What the cost was to Montreal of this terrible visitation can never be known. The loss to trade and commerce, the loss by sickness and death, with all their attendant expenses, can only be guessed at, but the Health Committee alone expended about £36,000 in hard cash in coping with it. The death-rate of the city, which averaged 26·7 in the previous five years, reached during 1885 the enormous figure of 46·7 per 1000; and the births, instead of being in excess of the deaths, as is always the case in large towns, were 1522 below them; thus, whilst the total births for the year were 6303 the total deaths were 7825, considerably more than one-half of these being due to small-pox. How many persons contracted the disease cannot be told; more than 3000 died from it in a little over six months, which, if the fatal cases bore at all the proportion to attacks which is now met with in England, would give something like 20,000 as the number of persons who suffered; but judging from the death-rate recorded in the hospitals—i.e., 31·3—probably 10,000 would be nearer the true number. The lessons that, to my mind, may be learnt from the above are: first, given a susceptible material—i.e., an unvaccinated population,—and small-pox, once started therein, has lost none of its old powers to maim and to slay; secondly, there is demonstrated the absolute importance of some law or regulation being in force by which prompt notification of such diseases should be made to the proper authorities; and thirdly, that there should always be ready good and sufficient accommodation for separating without delay infected persons from the rest of the community, with the necessary powers for compulsory removal whenever in the interests of the public at large this is imperative, together with compulsory disinfection or destruction of infected material and the supervision of persons known to have been exposed to the contagion. Montreal, free from small-pox for some years, had become lax in its regulations; vaccination had been neglected; hospital accommodation was not ready at the first demand. A solitary case so mild in character as to be mistaken for chicken-pox, gets received into a general hospital, infects the building, and herefrom the whole city is infected. In the absence of notification many cases are unheard of, and thus the disease literally spreads like wildfire. Montreal has become wiser by bitter experience, and to-day compulsory vaccination is in force, whilst the opposition to it has diminished to very small proportions; in all cases where it is desired, calf lymph is used by the public vaccinators. Compulsory notification of infectious disease is likewise in operation, and proper hospital accommodation is available at once without loss of time. At the time the epidemic was in progress, it was asserted in this country by the opponents of vaccination that the disease was chiefly prevalent in the less healthy parts of the city, amongst the lower classes. That it did prevail here is true, especially amongst the French Canadians, but it was amongst these also that vaccination had been most extensively neglected. On the other hand, I can assert, from personal observation, that many of the streets and districts in which the disease was at its worst contained good, well-built, well-arranged houses, equal in their general sanitary condition and surroundings to the bulk of the newer artisan dwellings found in the large towns of England.

In the face of the evidence supplied by this outbreak of the susceptibility to and mortality from small-pox in an unvaccinated population, surely a heavy weight of responsibility attaches to those agitators in this country against vaccination, influencing, as they do, chiefly the poorer and less educated classes, who are least able to form a right judgment on such a question, and who in all outbreaks of contagious disease suffer the most severely. At present no English community, not even Leicester, has in it so large a proportion of unvaccinated souls as Montreal had, and therefore even Leicester is at present much more largely protected than that city was. It is only within the last two or three years that the vaccination laws have been entirely in abeyance within this borough. When sufficient time has elapsed, as at Montreal, and the unvaccinated of the town shall be numbered by tens of thousands, a like catastrophe will be rendered possible, and those who are best familiar with the power of this plague to disfigure and destroy can but look forward to the future with the gravest apprehensions. Whether, then, or for how long, the present measures, admirable in themselves and highly to be commended as far as they go, will suffice to keep this enemy from our doors, time only can show.

REMARKS ON

ENDOSCOPY WITH THE ELECTRIC LIGHT.[1]

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IT is now twenty years since I first brought under the notice of the Liverpool Medical Society the means then at our disposal for making an ocular inspection of the bladder and urethra, in both male and female. I then demonstrated my remarks with Desormeaux's instrument as improved, so far as the illuminating power was concerned, by Dr. Cruise of Dublin. During the interval that has elapsed, endoscopy, like many other appliances in surgery, has made considerable advances, the electric light has taken the place of paraffin, and I am now enabled to show you an instrument which promises to be of much value in illuminating not only the bladder and urethra, but other parts of the body. The instrument I refer to is one which, I understand, is the work of Mr. Leiter of Vienna, though I see in THE LANCET of April 21st that Dr. Max Nitze of Berlin claims a priority for its invention. It consists of a plunge battery of six cells and the connecting wires, by means of which the electric current is conducted along the various instruments containing the illuminating apparatus. For the examination of the bladder we employ a hollow sound, with a miniature Swan's incandescent lamp in its extremity, by means of which an extremely powerful light is obtained. For the complete examination of the bladder two of these sounds are required, one being fitted to allow of the inspection of the anterior, and the other the posterior aspect of the viscus. The examination of the urethra and rectum is conducted in a different way; here the light is not generated at the end of the instrument, but is reflected down a tube by means of a mirror. As the light is placed for the latter purpose between the eye of the observer and the orifice of the speculum, some care is necessary in using tubes of different calibres, in seeing that the electric lamp is placed relatively to the mirror at such an angle as to throw the ray of light directly down the tube. In regulating the amount of light employed, some care in the use of the rheostat is also necessary, as if too large a charge is suddenly generated, it may result in the destruction of the little lamp. In case of such an accident happening, it is quite easy to replace the lamp without further damage to the instrument or any detriment to the patient. One of the first advantages claimed for the instrument is the safety with which it can be used. In an older instrument, which has been referred to as the Nitze-Leiter, so much heat was produced that it was necessary to provide a constant current of cold water to prevent any damage being done to the structures, and this rendered the apparatus somewhat cumbersome. Still, in spite of this inconvenience, some good work was done with it by Dr. Oberlaender of Dresden in depicting morbid appearances presented by the urethra, as you will see from the plates accompanying his paper.[2] In the use of the new cystoscope it is necessary that the bladder shall contain five or six ounces of clear water; this allows of the instrument being manipulated with perfect safety, whereas if the lamp is burned in the air, or in a space not thus protected, it becomes hot. One obstacle to the successful use of the instrument in the bladder is the liability of the injected water to become tinged with blood. When this is the case the instrument must be removed and fresh water introduced until all blood staining has ceased. As it is in doubtful cases of vesical hæmaturia that electric endoscopy is likely to be of considerable service, I am endeavouring, with the assistance of Mr. Schall, of Wigmore-street, to arrange so that the bladder may be irrigated and refilled with water, when the latter by any cause loses its transparency, without removing the cystoscope from the bladder. This is an important point, which I hope to secure, as the use of the endoscope as an instrument of precision will thereby be much enhanced. There is one other source of difficulty I have encountered in the examination of the bladder, and that occasionally arises from the inability of the latter to contain a sufficient quantity of injected water for the convenient use of the instrument. In one instance which has come under my notice this difficulty was considerably got over by first injecting the bladder with a 10 per cent. solution of cocaine.

Speaking generally of electric endoscopy, I think its chief value will be found, not in supplanting other means of diagnosis, but in providing the additional link which in certain cases is necessary to make the chain of evidence complete. Take, for instance, a case of hæmaturia, where we have good reasons for concluding the blood comes from the bladder. Though we may believe that the source of this is a tumour of some kind, we are quite unable to come to a positive conclusion upon this point until we either discover it by the microscopic examination of a portion of the growth which has been accidentally discharged, or until the interior of the bladder has been explored by the finger. With the electric endoscope, I have not the least doubt that, in the great majority of cases where hæmorrhage proceeds from a vesical growth, the source of the bleeding may be discovered at an early period of its occurrence, and not, as it now often happens, until the disease has made considerable progress. Again, we not unfrequently meet with cases where, with much functional disturbance of the bladder, more or less pus is contained in acid and otherwise healthy urine. Here the new endoscope will often be of service in showing us ulcerous and tuberculous surfaces within the bladder, which previously we had no means of actually demonstrating. In the diagnosis and treatment of stone and stricture of the urethra I do not think there is much left for endoscopy to do. If the sense of touch is not sufficient to enable the surgeon to detect the presence of a calculus in the bladder, or to manipulate an instrument through a tight stricture, I do not believe he will be likely to derive much assistance from the endoscope. Whether seeing under such circumstances would enhance the value of educated feeling I very much doubt. In some chronic forms of urethritis I have found that diagnosis and treatment may both be essentially aided by ocular inspection of the part, and by the facilities the endoscope affords for making direct applications to diseased surfaces. In these directions I venture to predict that electric endoscopy will be found, in conjunction with other approved appliances, of service to the practical surgeon.

[1] Read before the Liverpool Medical Institution, April 20th, 1888.
[2] Vierteljahres-schrift für Dermatologie und Syphilis. Wien, 1887.

ON THE

TREATMENT OF EARLY EXTRA-UTERINE GESTATION.[1]

BY G. ERNEST HERMAN, M.B. LOND., F.R.C.P.,
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THE great difficulty in the decision as to the early treatment of extra-uterine gestation is the extreme uncertainty of diagnosis. It is necessary, in considering each plan of treatment, to weigh carefully what will be its result if the diagnosis be incorrect. This uncertainty of diagnosis, of course, affects also prognosis. Were we to confine ourselves to cases in which the diagnosis has been verified, either by post-mortem examination or by abdominal section, we should conclude that extra-uterine gestation was one of the most fatal diseases known. There may, however, be cases in which rupture takes place, but hæmorrhage spontaneously ceases, and the fœtus and the effused blood are ultimately absorbed. Leopold[2] experimented on animals by opening the uterus and turning the embryos out into the peritoneum, and he found that absorption took place. A very early fœtus may be dissolved in the liquor amnii. Smellie[3] describes such a case, in which the amnion was expelled separately from the chorion, and the fœtus could be seen inside it. After being kept for twelve hours most of the fœtus was found to have been dissolved. A case has been reported by Dr. Petch in which a fœtus so advanced that the fœtal heart was heard, died, and was almost completely absorbed. Among the cases operated on by Mr. Lawson Tait, out of twenty of which I have been able to find published details, there are six in which a placenta but no fœtus was found—a proportion surely too large to be accounted for simply by supposing that the operator over-

[1] Read before the Hunterian Society.
[2] Arch. für Gyn., Band xviii., S. 83.
[3] Midwifery, New Syd. Soc. Ed., vol. ii., p. 66.

looked the fœtus. I therefore do not doubt that absorption of an early fœtus, so as to leave no trace behind, is possible. How frequent such cases may be we cannot say. It has been thought by persons very competent to form an opinion on the subject that this frequently happens. Gallard[4] thought that most hæmatoceles were extra-uterine gestations. His opinion is shared by Lesouef.[5] Leopold[6] says: "How often may it happen that rupture of the gestation sac ..... in the second month may run its course with the clinical phenomena of a retro-uterine hæmatocele, and end favourably with complete absorption of the effused blood? I do not doubt for a moment that such hæmatoceles occur much oftener than we usually think, and Schroeder[7] believed that he had seen cases of tubal pregnancy run a favourable course in this way so often that he believed termination in cure to be the rule." Veit[8] goes even further, and says that extra-uterine pregnancy is the most frequent of all tube diseases for which patients come for treatment; that all cases of hæmatocele occurring in women who think themselves pregnant or have suffered from irregularities in menstruation before the illness should be taken to have arisen in tubal pregnancy; and that cases of apparent parametritis after abortion should be suspected of being hæmorrhage from extra-uterine gestation. I cannot go quite so far as Veit; for if extra-uterine gestation were really the commonest of all tube diseases, surely the fact should be capable of easy demonstration by the results of post-mortem examination and abdominal sections during life. But I believe that cases of early extra-uterine gestation, ending in early rupture, followed by absorption of fœtus and effused blood, are much commoner than is usually believed. I have seen three cases of large hæmatoceles, preceded by a history pointing to extra-uterine gestation, and accompanied by the passage of a decidua, in each of which the patient recovered. I have seen many in which, with the signs and symptoms of hæmatocele, there was a history more or less consonant with the supposition that extra-uterine gestation had been present. The diagnosis in these cases, although far from certain, yet rested upon grounds quite as strong as those supporting the diagnosis in the great majority of the cases reported as having been cured by electricity.

Although it is impossible to exactly state how often extra-uterine gestation ends in early rupture, followed by absorption, and very difficult to even approximately answer this question, yet it is upon this that the decision as to the right treatment must mainly depend. If extra-uterine gestation be a disease almost always fatal, then it is justifiable to submit the patient to a very considerable risk for the purpose of curing it; but if it be one from which patients often recover under expectant treatment, then greater caution must be observed. Supposing that the diagnosis has been made with the greatest probability, what is the course to follow? It seems to me that the choice lies between two alternatives—expectancy and abdominal section. There are other measures which have been recommended, and these it will be well to consider.

Tapping.—This has been much recommended, but I cannot join in advising it. It has been recommended for the, at present, hypothetical purpose of bringing to an end an unruptured tubal gestation. I speak of this as hypothetical, because I do not know of any case in which an extra-uterine pregnancy without any of the signs and symptoms indicating possible previous rupture has been tapped. Mr. Lawson Tait says that he has never diagnosed such gestation before rupture, and that "he did not know of anyone who had ever asserted that he had made a diagnosis of tubal pregnancy before rupture had taken place."[9] But supposing that the diagnosis were made, I am not sure that it would be so easy as it looks to direct the aspirator needle into the centre of a small and freely movable tumour, and to push it the exact distance necessary to reach the liquor amnii, neither stopping short of this point nor going beyond it. And I do not think it quite certain that drawing off the liquor amnii will kill the fœtus. It has been drawn off in cases of five or six months' pregnancy without killing the fœtus, and I see no reason why this should be more fatal at earlier periods of pregnancy. But the great objection to it is that it is not safe. There are several cases on record in which death either from hæmorrhage or peritonitis was the result of tapping. Considering that in early extra-uterine gestation the vessels enter the sac from below, I think it is to be expected that they should sometimes be wounded, however fine be the trocar used. Puncture, therefore, is dangerous; its result is at least uncertain, and it has never to my mind been proved to be efficient. There have been cases published in which a trocar has been put into pelvic tumours assumed to be extra-uterine pregnancies, some serous fluid has been drawn off, and the tumours have afterwards subsided; but in all that I am acquainted with the diagnosis was very doubtful.

Thomas's operation of cutting from the vagina with the cautery knife.—An eminent author has spoken of this as "a bold and judicious proceeding." I think it bold, but not judicious. The operator cannot tell into what structure he is putting his red-hot knife, and if the diagnosis should be erroneous the results will be disastrous. In a paper on Delivery by the Vagina in Extra-uterine Gestation, published in the Obstetrical Transactions for 1887, I have criticised this operation more at length, and brought together the cases in which it has been performed. They are few, and it is to be hoped they may remain so.

Galvanism.—Mr. Lawson Tait has characterised this as a "nonsensical proposal"—a phrase which is at least perspicuous. I confess that were it not for the many able men who have not merely considered the "nonsensical" proposal worth putting in practice, but have reported good results from doing so, I should have been disposed to agree with Mr. Tait. I should have thought that an electric shock or current strong enough to kill the fœtus would have killed the mother too. The arrangements necessary for the nutrition of the embryo are much more elaborate, and more easily put out of gear at the end than at the beginning of pregnancy. Thus the early embryo, there is reason to think, can survive detachment of the chorion from its maternal implantation, as in the production of secondary abdominal gestation. But considerations of this kind are merely theroretical objections, which are not to be put into the balance against facts. There are a great number of published cases in which the diagnosis of extra-uterine gestation has been made, galvanism has been used, and the tumours have shrunk away. But the great mass of literature of this kind is far from convincing. The papers of Thomas[10] and Garrigues[11] contain many cases in which the diagnosis rests upon such slender grounds that it is impossible not to suspect error. The strength of a chain is in its weakest link, and when one finds seriously adduced as scientific evidence cases of an extremely doubtful kind, without apparently a sufficient sense of the possibility of mistake, one is apt to judge of the strength of the whole chain of evidence by these weak links. There are cases, however, such as that of Dr. Petch,[12] in which the fœtal heart was heard, and after electricity had been used the cardiac sounds ceased. This case, so far as I know, is unique. But there are some others in which the diagnosis seems highly probable and the tumours went away. But in Petch's case the heart sounds were not affected at the time the electricity was applied. It is not at all uncommon for an extra-uterine fœtus to die before term when electricity has not been used, and I think we want a larger number of cases diagnosed with much greater accuracy than the great bulk of those hitherto published before it ought to be accepted as a fact that we can by a galvanic current kill an extra-uterine fœtus. And the evidence is not all on one side. A case has been published by Duncan in the St. Bartholomew's Hospital Reports (1883, p. 40), in which it was found that a faradaic current, so strong that the pain would without ether have been unbearable, and that it produced vesication of the skin and a cauterising effect on the vagina, failed to kill a fœtus of five months. Electrolysis, the needles being introduced into the fœtus, was subsequently used, but did not immediately kill the fœtus, although it produced decomposition of the fœtal structures, with evolution of gas. In another case, published by Hicks,[13] galvanism, one pole over the tumour, the other in the vagina, failed to kill the fœtus. Now, in my judgment, a single well-observed case of this kind, in which the diagnosis and the

[4] Gazette Hebdomadaire, 1858, p. 461.
[5] Remarques sur Trois Cas de Grossesse Extra-utérine, p. 18.
[6] Arch. für Gyn., Band xviii., S. 74.
[7] Lehrbuch der Geburtshulfe, 6th Aufl., S. 408.
[8] Zeitsch. für Geb. und Gyn., Band xi., S. 384.
[9] Brit. Med. Jour., 1886, vol. ii., p. 1094.
[10] Amer. Gyn. Trans., vol. vii., p. 219.
[11] Ibid., p. 184.
[12] Brit. Med. Journal, 1886, vol. ii., p. 1092.
[13] Obst. Trans., 1868, p. 98.

effect, or rather non-effect, of the treatment were beyond all doubt, outweighs a great number in which the diagnosis was uncertain, and the possibility of natural cure by rupture or death of the fœtus overlooked. And if electricity cannot be relied upon to kill an extra-uterine gestation, there are several objections to its use. First, it is wasting time and exposing the patient to dangers which might be avoided by more effective treatment. Then it is not free from danger, for there have been deaths accredited to electrical treatment of abdominal tumours. And even if electricity be successful in killing the fœtus, the patient is not put beyond danger, for the presence of a dead fœtus and its placenta may be the source of many accidents. For these reasons I do not think it yet fully established that our rule of practice ought to be to use electricity whenever early extra-uterine gestation is suspected.

There remains *abdominal section*, which has this advantage over puncture and electricity—viz., that, if successful, the cure is beyond all doubt final and complete. The objection to it is the risk to life; and the question which in individual cases has to be decided is whether the risk involved in an operation is greater than that of letting the patient alone. The question must be considered in each case by itself, for the relative risks of operation and expectancy differ so widely in different cases that a general rule cannot be laid down which shall be applicable to all cases at all times and in all circumstances. Abdominal section might be performed, if the diagnosis were made, before rupture. It never has been done, so far as I can ascertain. Maygrier quotes Veit as having twice operated before rupture, but on reference to the original record I find that in one case rupture had taken place, and as to the other no details are given from which to gather whether the sac had ruptured or not. Could the diagnosis be made with confidence, I think the certainty of cure by this method much outweighs the risk. And if, as in a large proportion of cases, the diseased tube be not adherent, the risk of operation would be hardly more than that attending the removal of normal ovaries.

I think I have seen operations spoken of as having been done "at the time of rupture." This phrase is only correct if understood in a loose colloquial sense. What is meant is, *soon after* rupture. A moment's consideration of the time that must be occupied first in sending for medical aid and then in making arrangements for operation will show that cases must be rare in which an operation can possibly be done so soon after rupture as to save the patient from the danger of death from the primary hæmorrhage. In the majority of cases of ruptured tubal pregnancy which have been submitted to operation the patient has rallied from the hæmorrhage, and it cannot be correctly said of them that they are cases in which life has been saved by arresting hæmorrhage. Thus in only four out of twenty cases operated on by Mr. Lawson Tait, and of which I have been able to find published details, does it appear that the patient was in immediate danger from hæmorrhage at the time of operation. The most that can be said is, that a disease has been removed which *might* have caused a renewed attack of hæmorrhage or peritonitis. But it is also possible that the patient might not have had further hæmorrhage, and that fœtus and blood might have been absorbed, and the patient recovered, without operation. In these cases, the majority, it is not an alternative of operation on the one hand and death from hæmorrhage on the other, but of operation with a certain amount of risk but complete cure if successful on the one hand, against possible renewed hæmorrhage and possible inflammation on the other. What the chance is of renewed or of fatal hæmorrhage after the primary hæmorrhage has once stopped we do not know, nor what the chance of recovery. But there is a possibility of recovery without operation. The risk of an operation, at present, can no more be precisely formulated than that of letting the patient alone. It depends on two things—the skill of the operator, and the condition of the patient at the time of operation. The progress in the past encourages the confident hope, and indeed certainty, that, as experience increases, not only the skill of the best operators, but the average knowledge and skill of surgeons generally, will attain a higher level, and so the mortality of this operation will diminish as that of other operations has done. The other important condition is the time at which the operation is done. If done, it should be done early. The earlier it is done, the less the patient will have suffered from the effects of hæmorrhage; effused blood will not have had time to decompose, nor adhesions to form.

Briefly, there is good reason to think that many cases of extra-uterine gestation recover when left to nature. There is not yet evidence to show that either puncture or electricity can be relied upon to cure. Many of the cases of supposed cure by these means are doubtful as to diagnosis; in others it is possible that the cure was the natural course of the disease; both puncture and electricity have failed, and puncture is dangerous. Early abdominal section offers the best prospect in cases in which treatment is necessary.

(To be concluded.)

ON

THE BENEFICIAL EFFECTS OF PERINEAL DRAINAGE AS A PRELIMINARY TO REMOVAL IN CERTAIN CASES OF TUMOUR OF THE BLADDER.

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INASMUCH as hæmaturia is often the only symptom present for a considerable period in the early stage of papilloma of the bladder—evidences of vesical irritability (viz., pain and increased frequency in micturition) not appearing until later in the course of the disease,—the bleeding is at first very frequently regarded as renal, not vesical, in its origin, and the case is accordingly treated as one of chronic kidney disease. Consequently it often happens that it is only in the later stages, when well-marked bladder symptoms have developed, that the case is no longer regarded as of a medical nature, and surgical assistance is at length summoned. The result is that when the patient comes under the surgeon he is often worn out and exhausted by profuse and continuous loss of blood, and therefore in a very unfavourable condition for any successful operative interference. This is what has now occurred at least twice in my experience. The patients had become so exhausted by profuse hæmaturia—in one instance of three years', in the other of twelve months' duration—that, though the tumours were successfully removed, they gradually sank after the operation; their strength had become so much impaired in consequence of their condition of extreme anæmia that they did not possess sufficient reparative power to meet the demands made on the system after the performance of a severe operation, such as that of suprapubic cystotomy. In a third case, though the patient ultimately recovered, still he was for some days in a very critical condition from the same cause.

From a consideration of the results in these cases, I resolved, when another of a similar nature came under my care, to try to temporarily arrest the bleeding by bladder drainage (for in the late stage of the disease the ordinary palliative treatment by astringents given internally and applied locally has not any effect whatever in checking hæmorrhage), in the hope that by doing so the patient might regain strength, and then after some interval be in a better condition to bear the more serious operation of removal of the tumour. Such an opportunity was not long in presenting itself. On Feb. 2nd Dr. Sawers Scott asked me to see a patient, first seen by him a few days previously, whom he believed to be suffering from a tumour of the bladder. The patient, a male, aged fifty years, gave the following history. Three years ago he was seized with hæmaturia, the attack continuing for about four months; the bleeding then ceased, and there was no recurrence until about six months ago, when profuse hæmaturia again set in and continued without intermission ever since; latterly micturition had become extremely painful and very frequent. When seen the patient was in a very prostrate condition, being so weak that he could not raise himself in his bed, to which he had been confined for more than a month. There was extreme pallor of the skin and mucous membranes, not a vestige of colour remaining in the lips, which presented a livid appearance. The pulse, 136, was very small, feeble, and irregular. The urine which he was passing was of a dark-red colour, containing a very large quantity of blood. On exploring the

bladder with a Thompson's sound nothing could be felt, but on drawing off the urine it was noticed that the last portion contained more blood than the first, indicating that the bleeding was vesical in its origin. On removing the sound a small portion of growth was found caught in the eye of the instrument, which, examined under the microscope, showed most typical villi. The presence of a papilloma was therefore very clearly established. As it appeared certain that any attempt to remove the growth in the patient's extremely exhausted condition would prove unsuccessful, it was suggested that bladder drainage through a perineal opening should be carried out, simply with the object of arresting hæmorrhage, to be followed after a time by an attempt to remove the tumour itself. To this the patient consented, and the following day he was admitted into the hospital for more careful nursing than he could obtain at home. On admission, ice was applied over the pubes and introduced into the rectum, and large doses of ergot and iron were given internally, but without any effect whatever on the bleeding, which was very free. On Feb. 5th perineal urethrotomy was performed in the usual way. On passing the finger into the bladder, a soft sessile growth, apparently about the size of a Tangerine orange, was felt springing from the right lateral wall. For the reasons already mentioned no attempt was made to remove it, especially as this would have been impracticable without proceeding to perform suprapubic cystotomy. The bladder was washed out with hot boracic lotion, and a rigid lithotomy tube left in the perineal opening. The operation was followed by complete arrest of the bleeding. The following day the urine was quite clear, and afterwards remained so. The bladder was washed out daily with boracic lotion through the perineal tube, which was removed at the end of a week. The perineal opening was quite closed on the twenty-third day. The cessation of the hæmorrhage was followed by a rapid improvement in the patient's condition. The pulse, which during the first fortnight varied from 134 to 140, gradually came down to 84. He quickly regained strength, putting on flesh, and losing his pallid, anæmic appearance. He was up and walking about the ward at the end of a month, being quite free from any bladder symptoms, and a fortnight later left the hospital, being anxious to gain more strength, and promising to return as soon as there was any recurrence of the hæmaturia, for the purpose of having the tumour removed by suprapubic cystotomy.

The case illustrates the beneficial effect of bladder drainage in arresting vesical hæmorrhage when due to a tumour. Probably an important factor in the production of bleeding under these circumstances is the contraction of the muscular wall of the bladder; every contraction, by interfering with the return of blood from a vascular growth like a papilloma, must produce in it a condition of extreme congestion, which is probably only relieved by a giving way of the thin-walled vessels of the villous processes, and consequently by hæmorrhage into the interior of the bladder. With free bladder drainage the urine runs away as soon as it enters the viscus, and the latter, not being excited to contract by the presence of any urine, is kept in a state of physiological rest, which, as in this instance, was followed by a complete arrest of bleeding. This, of course, can only be temporary, but it has now continued for five weeks since the closure of the perineal opening, and as yet there is no indication of any recurrence of the hæmorrhage.

ANTIPYRIN AS AN ANODYNE.

BY ARTHUR JAMISON, M.D.

ANTIPYRIN has been very greatly praised on the Continent as an almost perfect anodyne. I am fully aware that when a remedy does a very great deal of good it is often very new, and as time goes by it is found that the anticipations of the first trials are not realised. Hence I am very sceptical of the scores of remedies the business push of some energetic chemists keeps constantly before our notice; yet I think I have seen such relief from the use of antipyrin that I venture to bring forward the following cases.

CASE 1.—Mrs. A——, aged forty-eight, consulted me on Jan. 12th for profuse menstruation and many sympathetic symptoms, all obviously connected with the commencing menopause, chiefly very acute backache and left frontal neuralgia. The uterus, except being rather heavy, was normal, and there were no signs of ovarian mischief. I prescribed bromide of potassium, ergot, and quinine. On the evening of the 14th the pain in the back seemed so acute that I found her rolling about the bed in agony, and I gave her a hypodermic injection of morphia. This gave her a good night, but made her dreadfully sick. During the afternoon of the 15th the pain returned even more severely. It was described as darting and jumping up and down the backs of both thighs as well as the back. I now, in addition to the mixture, gave her one-thirtieth of a grain of phosphorus. This eased the pain very much, but on the 17th she complained so much of the disagreeable eructations of the phosphorus that I thought I would try another anodyne, and decided to give antipyrin, which was administered in five-grain doses every half-hour. The relief was most marked, and after the third dose the pain suddenly stopped. She was able to get up that afternoon, and the period stopped on the 19th. The next period began on Feb. 10th. It was very profuse, and about four hours after its commencing the old excruciating pain was felt in the back and down the course of each sciatic nerve. She immediately had recourse to the antipyrin in the same doses as before, and it was just as successful in giving complete freedom from pain. The pain returned two days afterwards, but two doses stopped it. There were no bad symptoms from the antipyrin, the only thing noticeable being that when the first three doses had been taken the pulse fell to 56. It had no effect on the menstrual period.

CASE 2.—Mr. B——, aged sixty-one, a tall strongish-looking man, came to me on Feb. 1st complaining of constant pain in the left lumbar region, and shooting forward into the groin of the same side. He had been a police superintendent, and had to leave the force for chronic rheumatism. The lumbar pain had been constantly troubling him more or less for twelve years, was increased by walking, and for the last three months had been getting more and more severe. It was not worse at night, and was relieved by sitting; for the last two weeks, the moment he began to move, it increased so much that life was a torment to him. When awake he did not want to sit still perpetually, and, if he moved, his pain was so bad that he hardly knew what to do. He told me the pain came on one night in July, 1875, quite suddenly about 10 P.M., was very intense during that night, got easier towards the morning, and has been troubling him ever since. He has had in the interval many intercurrent attacks of rheumatism. He has passed four stones per urethram at different times, nearly the size of a pea, but longer and roughish, and he thinks his back was easier for a time after passing each concretion. He has now no pain in passing urine, nor any pain shooting into the testicle of that side, or over the pubes. Specific gravity of urine 1018, free from albumen, giving no deposit of phosphates, but a slight settling of urates. He can only get about with the aid of two strong sticks. He has had much treatment, has been to both Buxton and Bath, has had endless external applications, has tried galvanism, and lastly massage. Now, after hearing this long history, I felt that everything had been done that ingenuity could suggest, but, drawing a bow at a venture, I gave him antipyrin in ten-grain doses thrice daily, thinking I would add one more to the longish list of his advisers and not see anything more of him. On Feb. 11th he visited me again. He told me that on the day of his coming to see me, as the medicine was not nasty he took three doses, and had had that night two hours' refreshing sleep. This gave him a little confidence, so he continued taking the remedy, and found his pain diminish and his sleep increase. On Feb. 4th he could, to his surprise, get about with one stick. He continued to mend, and felt that day very much better, the pain not being half so bad as before; it was mostly in his groin. He was in such good spirits that he felt himself another man. His pulse, which had been 86 on his first visit, was now 70. On March 3rd I saw him again. This time he walked in without any sticks and had only a slight limp, and during the past week had hardly any pain. His pulse was now 64. I told him to discontinue the medicine, but to take it if the pain returned. On March 10th he came to say he was free still from pain in his back and groin, though he had had springes of rheumatism, but felt wonderfully well.

CASE 3.—I will only briefly mention this case. A barrister came to me who had long been a sufferer from temporal neuralgia. He now treated himself with quinine and

phosphorus pills, which he bought ready made. He had tried tonga, and a friend told him to take antipyrin. He had no doubt it had given him the greatest relief, though he still had slight attacks. Why he came to me was his alarm at finding his pulse go down to 52. For many years he had felt his pulse, which was generally 74, and naturally thought something was going to happen. I told him I thought it was the antipyrin, and advised him to stop it.

The only connecting link in these cases was a rheumatic one. The patient in Case 1 came of a very rheumatic and gouty stock. In Cases 2 and 3 the patients had rheumatism. In the former I think the cause of the pain was to be found in the renal calculi setting up neuralgia, which continued from the subsequent ill health or from a neurotic bad habit; possibly there may still be a very minute fragment, and I would not like to say the cure has been permanent till a longer time has elapsed. At all events, I think these cases go to prove that in painful neuroses we have in antipyrin a remedy of great power and value, and well worth a more extended trial.

ON A CASE OF VITILIGO.

By J. HAWKES, M.D.

AN example of this somewhat rare and remarkable disease having lately presented itself in my practice, I think a brief account of the case may prove interesting.

The patient is an intelligent, well-developed man, aged thirty-three, an agricultural labourer, who has till recently enjoyed good health. He is married, and has one child two years old. He is sparely nourished, complexion rather dark, irides brown, hair dark and thick, dark moustache and whiskers, habits temperate and regular, is a moderate smoker (about two ounces of tobacco per week), does not indulge in any excess, and is a thoroughly quiet, steady man. During the summer of last year he was regularly employed in hay-time and harvest working in the fields, and after being exposed to the heat of the sun began to experience feelings of lassitude and exhaustion, attended by pain in the head, chiefly posteriorly and towards the vertex. He also suffered from a constant aching sensation below the shoulder-blades and backs of the legs, and a feeling as though something was crawling beneath the skin. About the same time he noticed numerous patches on the body and limbs, where the natural colour of the skin was lost. He was not aware of any cause for this failing in health. On the forehead, about an inch from the margin of the hair, a band of light-coloured skin, with distinct demarcation from the surrounding cuticle, is perceptible, running across the forehead and descending on either side to the superior malar bone, stopping near the zygoma, and extending behind to the mastoid process; it also invades the scalp, being distinctly visible among the roots of the hair. This loss of colour is very marked on the sides of the temples, where it resembles the white scar of a burn; it looks as if the epidermis had been peeled off, leaving the white cutis vera exposed. On the thorax and trunk are very numerous patches, irregularly circular, and measuring from two to three inches across, presenting the same appearance. On the arms and backs of the hands and fingers are countless similar blotches, each perfectly distinct, and looking as if a strong bleaching fluid had been sprinkled over them. The same patches exist on the lower limbs. There is no anæsthesia in any of these spots, nor is the hair growing upon them at all affected. He complains of dull pain in the head and giddiness on stooping. Pulse soft and small. Tongue clear. Skin tolerably moist. Secretory functions normal. Suffers from sleeplessness. Has no symptom of paralysis or loss of power beyond what is above described. I prescribed a mixture containing bromide of potassium with liq. ferri perchloridi, and for a few days he experienced relief from its use; but finding the improvement not very marked, I substituted the following pill: two grains of pil. phosph. co. (B.P.), a quarter of a grain of ext. nucis vomicæ, and a quarter of a grain of ext. cannabis ind., three times a day; also a mixture of tinc. cinchon. co., liq. hydrarg. perchl., and liq. arsenicalis.—March 26th: Has taken the pills and mixture for ten days, and feels decidedly better.—April 14th: Up to this date has continued these remedies with marked improvement to the general symptoms.—17th: Suffers still from restless nights. Ordered liq. ferri perchl., tinc. nucis vomicæ, and potass. brom., in respective doses of twenty minims, fifteen minims, and twenty grains thrice a day; the other treatment to be discontinued.—22nd: Decidedly better and stronger. To continue the medicine.—25th: Perseveres with this treatment and is now sufficiently recovered to resume work, after a cessation of nine months; the condition of the skin, however, remains unchanged.

The principal interest in this case lies in the marked relation between the nervous centres and skin. We know how commonly this is indicated in many forms of mental disease: the harsh dry skin and bristling locks, which submit to no amount of combing or brushing in certain nervous disorders; the loss of hair and change of colour arising from undue overwork of the brain, and the cutis anserina induced by sudden shocks to the emotions. In the example before us the exhaustion of the nervous system induced by long exposure to the rays of the sun in an unusually hot summer, and attended by changes in the nutrition of the nerves supplying the skin, point to the cause of the phenomena, and suggest, if they do not explain, the origin of the disease. It is commonly regarded as being insusceptible to treatment, and the chief hope of recovery seems to be in the restoration of health and a return to the natural supply of nervous force.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. THOMAS'S HOSPITAL.

CHELOID OF ABDOMEN ASSUMING MALIGNANT CHARACTERS; ULCERATION AFTER NINE YEARS; ALMOST COMPLETE DISAPPEARANCE AFTER ERYSIPELAS; RECURRENCE; INFILTRATION WITH SMALL-CELLED GROWTH; SECONDARY GROWTHS; DEATH; NECROPSY; REMARKS.

(Under the care of Mr. WILLIAM ANDERSON.)

THIS case is a very unusual one in many respects, and the observations which were made during its progress at various intervals make it very valuable. We refer our readers to the remarks by Mr. Anderson, which are appended to the case.

G. C——, aged thirty-two, whip maker, was admitted into St. Thomas's Hospital in August, 1886, with a large ulcerating tumour of the thoraco-abdominal wall. The patient stated that he first noticed a growth in the skin of the abdomen in 1873, when he was nineteen years of age. It was then a hard nodule, of the size of a walnut, situated upon the left side of the middle line, a little below the ensiform cartilage. He recollected having received a severe blow on the part five years before, but was uncertain whether the injury was followed by a scar or not. The family history was good.

The tumour enlarged progressively, but without pain, until April, 1882. At this time some smarting appeared, and the man presented himself at St. Thomas's Hospital. He was well developed and of healthy aspect, and complained but little of the local ailment. The growth was nearly as large as a hand, of irregular outline, but without any distinctly claw-like extensions, raised above the general surface, pale and scar-like in appearance, very hard, and presenting two or three bossy elevations of recent development. It was movable over the deep parts, and not tender to the touch. The disease was diagnosed as cheloid, and this opinion was confirmed by the microscopical examination of a portion of the mass. Shortly afterwards he left the hospital. In September he returned. The growth was then greatly increased in size, and some of the bossy irregularities, which had assumed large dimensions and a dusky red colour, had broken down, leaving a deeply excavated ulcer, with irregular, sharply defined border and indolent base. It was very tender to the touch, and from time to time was the seat of severe pain of a neuralgic character. The glands, however,

were unaffected, and there was no impairment of health. To relieve the suffering the ulcerated portion of the tumour was excised by Mr. Anderson. A microscopical examination of the part removed showed that the disease was limited to the integument, and that the tissues still preserved the cheloid characters intact to within a short distance from the breach of surface, but near the line of ulceration the fibrous bands were infiltrated and in part replaced by a small-celled growth resembling that of granulation tissue, which was beginning to involve also the subcutaneous fat beneath the floor of the ulcer.

Two days after the operation the wound was attacked by erysipelas. As soon as the inflammation had subsided the indurated mass began to melt away, and the process of involution went on so rapidly, that by the end of a month the whole tumour, with the exception of one small nodule, had become replaced by a firm healthy cicatrix. For about twelve months after this the condition remained quiescent. Renewed growth then set in, starting from the remains of the original tumour, and by the end of another year the appearances had become very similar to those which existed just before the operation. The patient was advised to re-enter the hospital with a view to a second inoculation with erysipelas, but after some temporising he placed himself under the spiritual treatment of the Salvationists. Unhappily, his faith was unavailing. In August, 1886, he re-entered the hospital, emaciated and prostrate to an extreme degree. The growth had spread completely across the upper part of the abdomen and lower part of the chest. The ulceration had increased greatly in depth and extent. The glands, both in the axillæ and groins, were enormously enlarged, and there were indications of disease of the lungs and other internal organs. He sank slowly, and died at the end of six weeks.

The post-mortem examination (performed by Dr. Sharkey) revealed that the neoplasm had penetrated the whole thickness of the thoracic and abdominal parietes, reaching, apparently by contact, the opposed portions of the left pleura and lung, the diaphragm, and the left lobe of the liver, and there were detached growths in the visceral pleura of the right side, in the wall of the left ventricle, and in both kidneys, the disease in each case replacing the normal tissues without forming any well-defined tumour. The microscopical appearances of the parietal growth differed from those observed in 1882 only in the wider diffusion of the cellular infiltration. The secondary deposits consisted entirely of round cells.

Remarks by Mr. ANDERSON.—This case is, so far as I am aware, the first of its kind that has been placed on record. There is no doubt that for many years the tumour presented the ordinary characters of a cheloid, and was strictly confined to the cutaneous tissues. The first departure from the cheloid type was rapid development followed by ulceration of the bossy eminences; but the almost complete disappearance of the growth under the influence of erysipelas, together with the absence of glandular enlargement and constitutional disturbance, favoured the view that the tumour might still be of an innocent nature. The evidences of malignancy did not become certain until the twelfth year of the life history of the complaint; but from this time the fatal course was rapid and characteristic. The case must probably be regarded as one of round-celled sarcoma attacking a cheloid, but it is to be noticed that the cell growth never formed a "tumour," in the ordinary sense of the word; even the suspicious-looking bossy elevations were at first composed, except near the point of ulceration, solely of fibrous tissue; and, as noted by Dr. Sharkey in his report of the necropsy, the secondary growths appeared simply to replace the normal histological elements of the parts attacked. Such a degeneration, however, whatever be its nature, is contrary to the recorded experience in cheloid. Kaposi expressly states that cheloid "never ulcerates," nor does its internal structure undergo any of the alterations which are known as the so-called "retrograde metamorphosis," and this assertion has not been contradicted. Nevertheless, there is reason to believe that the present example is by no means isolated. A case of skin tumour at the root of the nose was brought before the Pathological Society on March 8th last by Mr. Clutton, and by his permission was introduced a few days later at a meeting of the Dermatological Society by myself. This growth was hard, somewhat raised, and presented near its margin bossy prominences very similar to those observed in the case above reported. It had been enlarging very slowly for about thirty-five years, and its course had not been materially affected by a partial removal twenty-two years ago, but during the past year the bosses had appeared, and the rate of increase had become much more rapid than before, although no definitely malignant tendencies had as yet declared themselves. It is very possible that this will prove to be of the same nature as the tumour now under consideration. I am indebted, moreover, to Mr. Harrison Cripps for some details of a case of still greater resemblance, recently under treatment at St. Bartholomew's Hospital, but as this will be published in full hereafter it is unnecessary to do more than refer to it here. Such a liability on the part of an innocent tumour to become the seat of a malignant growth is of course not new; and a case bearing more particularly upon the present question is that noted as long ago as 1855 by Mr. Cæsar Hawkins of the occasional development of a neoplasm, said to be of an epitheliomatous character, on the cicatrises left by the use of the lash.

LEEDS GENERAL INFIRMARY.

A CASE OF HÆMORRHAGE DUE TO EROSION OF THE LEFT INTERNAL CAROTID ARTERY, ASSOCIATED WITH MALIGNANT DISEASE OF THE TEMPORAL BONE AND NECROSIS OF THE MIDDLE EAR; LIGATURE OF COMMON CAROTID; NECROPSY; REMARKS.

(Under the care of Mr. H. BENDELACK HEWETSON.)

FOR the following notes we are indebted to Mr. R. W. Green, house-surgeon.

T. S——, aged forty, was admitted on Aug. 27th, 1887, suffering from pain in the left side of the head and discharge from the left ear, absolute deafness on the same side, and purulent discharge from the mouth and nose. About fifteen years ago the patient began to have a discharge from the left ear, for which he could assign no cause. This had continued till the present time. During the previous year he had frequently had severe pain in the left side of the head; this had been very bad for a week or ten days before admission, but the discharge had been less.

On admission the patient complained of great pain in the left side of the head. On examining the ears, a polypus was seen in the left external auditory meatus, and a small amount of purulent discharge; there was also some discharge of pus from the mouth and nose.

On Aug. 31st, under ether, a quantity of polypoid material was removed from the left external meatus. A probe passed along the canal penetrated to a depth of an inch and a half, and then came in contact with the bare bone. This operation did little towards relieving pain, and subsequently morphia was given frequently hypodermically. The ear was syringed out twice daily with carbolic acid lotion (1 in 60), iodoform was freely used, and hot fomentations were constantly applied.

Sept. 7th.—Facial paralysis noted this morning.

8th.—Under ether, five or six pieces of necrosed bone were removed from the middle ear by means of long narrow-bladed forceps. The tempero-maxillary articulation was found to be open, and the finger passed into the meatus could detect the condyle of the inferior maxilla. During the five days following this operation the temperature, which before had been as high as 104°, fell to normal, and the patient's general condition improved considerably. The pain in his head became less severe, but the facial paralysis more marked.

15th.—Patient not so well. Has great pain in the head, and the discharge from the ear is both copious and offensive. For a few days after this marked improvement was seen in the patient's general condition.

25th.—During the morning the patient appeared to be still improving, but in the afternoon there was slight bleeding from the mouth and ear, which stopped spontaneously. At 9.30 P.M. an attack of hæmorrhage from the mouth and ear came on. It was so profuse that the nurse's attention was attracted to it from the other end of the ward by hearing the blood dripping upon the floor. The hæmorrhage was arrested by plugging the ear with strips of lint, that from the mouth ceasing spontaneously. At 10 P.M. there was another attack of hæmorrhage from the mouth (large quantity); this ceased, apparently from faintness of the patient. As hæmorrhage was evidently coming from the internal carotid in the temporal bone, Mr. Littlewood, the resident surgical officer, tied the left common carotid

artery, about three-quarters of an inch below its bifurcation, with a catgut ligature, having previously injected one grain of cocaine in the position of the incision. The patient was extremely weak from loss of blood, and, as the pulse was rapidly failing, it was decided to transfuse. In order to confine the blood in the upper part of the body, a broad elastic bandage was applied to each lower extremity from the toes to the groin. About sixteen ounces of normal saline solution were then injected, by means of Aveling's apparatus, into the left median basilic vein. As this operation proceeded the pulse got gradually stronger, and when finished the patient was in a decidedly better condition than before the transfusion. After this he became drowsy, and slept soundly through the night. Next day, at 7 A.M., the patient was snoring loudly. There was complete hemiplegia of the right side. Perspiration was standing in large drops on the trunk, limbs, and right side of the face, but the left side of the face was quite dry. The left pupil was contracted, the right widely dilated. The patient did not regain consciousness, but gradually sank, and died about 2 P.M.

Post-mortem and microscopical report by Dr. JACOB.—On the left side of the brain, about the centre of the upper border of the temporo-sphenoidal lobe, implicating also the contiguous convolution above it, was a red discolouration affecting only the grey matter of the cortex. It had some resemblance to a morbid growth, but was not well defined, and was about the same consistence as the rest of the brain. The nerves coming through the jugular foramen had a slight coating of lymph. On removing the left temporal bone, it was found that the cavity of the ear and the bone around it were invaded by a pulpy growth resembling a soft sarcoma. All traces of the internal and middle ear were lost, and there was a condition of offensive suppuration. The left common carotid had been ligatured, and on tracing the course of the internal carotid, about three-quarters of an inch below its entrance to the cranium there was a ragged, ulcerated opening, large enough to receive a No. 2 catheter. The artery at this point was surrounded by a hard mass of the growth above mentioned. There was considerable softening and breaking down of the bony structures, and the condyle of the jaw was exposed. The pulpy growth extended downwards for some distance. Nothing particularly abnormal was noted in other organs.

Microscopic report of growth.—The artery was surrounded by a soft material, which on section presented the appearance of a sarcomatous growth. Microscopically, it consisted of a stroma of myxomatous tissue pervaded in all directions by narrow cylindrical processes of a closely packed round-celled growth. In some parts these processes were very thin, and closely approximated to each other. In others they were larger, and isolated by an intervening growth of myxomatous tissue. In one section a large central mass could be seen branching out in all directions. In some parts this round-celled growth was not unlike epithelial infiltration, some of the cells being of larger size. In one portion there was a collection of round cells of much larger type, suggesting epithelial tissue, the cells irregularly grouped, and some were degenerating into a colloid-looking material. Many transition forms, however, could be found, and the general appearance and grouping of the cells were more characteristic of sarcomatous than carcinomatous growth. The main type of the growth resembled a cylindroma.

Remarks by Mr. HEWETSON.—The preceding notes of fatal hæmorrhage, due to erosion of the internal carotid, which have been followed by a complete post-mortem examination, to which I am greatly indebted to Dr. Jacob, go to show that in one respect the present instance is peculiar, in that, besides the usual conditions found in such cases, malignant disease is added. I find that thirteen fatal cases of this kind have hitherto been reported by Professor Politzer, he quoting from the cases collected by Hessler; but in no instance can I find any record of sarcomatous growth such as Dr. Jacob discovered at the post-mortem examination. I was able to show, when the patient was under ether at the second operation, that all the sequestra were removed, and also that the opening into the articulation of the jaw communicated with the mouth; hence it is probable that the hæmorrhage as well as the suppuration found its way into the mouth and nose through this channel, as well as, probably, through the Eustachian tube. In this also the case shows special points of interest. I regret that the polypoid growth which was first removed from the meatus was not submitted to microscopic examination, but I feel convinced that both the polypus and the growth were probably due to the long saturation of the parts with offensive ichorous discharge, as is evidently the case when an aural polypus follows a chronic otorrhœa. I am inclined to think that the erosion in this case has taken place, from a mechanical point of view, much as in all the other reported cases, since it occurred exactly at the point which Politzer shows is the usual one—viz., where the artery changes from the vertical to the horizontal direction, possibly either by the artery being exposed to the long-continued suppuration surrounding it, or to the friction of the pulsation upon the sharp edge of a sequestrum. Had it not been for the great promptitude and ability displayed by the resident surgical officer, Mr. Littlewood (to whom I am further indebted for the notes of what he did), I feel convinced that the case would have been immediately fatal. As it was, life was obviously prolonged some sixteen hours, but the hæmorrhage occurring as it did after prolonged illness and exhaustion, it is almost remarkable that so much could have been done as to prolong his life even for a few hours. The specimen has been added to the Pathological Museum of the Yorkshire College.

Medical Societies.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

A MEETING of this Society was held on Wednesday, May 9th, the President in the chair.

Dr. WHITELEGGE read a paper upon Age, Sex, and Season in relation to Scarlet Fever. A detailed analysis of upwards of 6000 notified cases showed that the liability to scarlet fever was slight in infancy, reached its maximum in the fourth or fifth year, and diminished every year afterwards. The severity of attack, however, was greatest in the first two years of age, and lessened year by year throughout childhood and adolescence. In adult life there was apparently a slight increase again, the reality of which was open to question. Females were more liable to attack than males at all ages after infancy, and especially between twenty and thirty-five years, when the charge of children gave special facilities for infection; but the attacks among males, though fewer, were more fatal, and the death-rate was therefore higher among males in childhood. The scarlet fever death-rate reached its maximum in both sexes in the third year of life: 42 per cent. of the cases and 65 per cent. of the deaths occurred in the first five years of life; 40 and 26 per cent. respectively in the second quinquennium; and 11½ and 5 in the third. The advantage of postponing an attack was twofold: each year of age beyond the fifth diminished the liability to attack, and each year of postponement lessened the severity of attack. Probably about two-thirds of the adult population had escaped attack altogether. As regarded season, the maximum of cases and of deaths occurred in October, the minimum in April. A scanty rainfall seemed to be favourable to the spread of the disease. Besides the annual or seasonal curve, a weekly curve might be constructed showing the number of attacks upon each day of the week. The result of this experiment in regard to 1100 cases in Nottingham was to indicate a marked reduction in the number of attacks on Wednesdays, presumably due to less facility for infection on Sundays. Diphtheria and enteric fever were now known to be affected by other influences besides the accident of exposure to contact with previously infected persons. Scarlet fever had many points of resemblance to these two diseases, notably in its seasonal curve, and in this and other respects was in strong contrast to the typically infectious diseases, such as small-pox, whooping-cough, and measles. One exceptional mode of infection had been brought to light by Mr. Power's Hendon inquiry, but was probably not of frequent occurrence. Infection from a previous case was the obvious explanation of many cases of human scarlet fever, and might be true of all or almost all, but it could not be the whole truth. Some further explanation was needed to account for the well-marked seasonal and other variations in the prevalence of the disease.—In the discussion which followed, the President, Surgeon-General Murray, Inspector-General Lawson, Drs. McKellar and Seaton, and Mr. Butterfield took part.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Models illustrative of Brain Growth and Cranio-cerebral Topography.—Homology and Innervation of the Achselbogen and Pectoralis Quartus, and the Nature of the Lateral Cutaneous Nerve of the Thorax.—History of the "Nerve to the Anconeus."

A MEETING of the Section of Anatomy was held on March 2nd.

Professor CUNNINGHAM exhibited fifteen Models of the Human Head. He stated that for some months past he had been endeavouring to arrive at such data as would enable him to determine the relative degree of growth of the several lobes and convolutions of the cerebrum from infancy up to adult life. One of the first questions to be solved in approaching such an investigation was: By what standard shall we measure this growth? Shall we take the cranial sutures as our standard of reference? However suited these might be for establishing topographical relations, he considered that they would infallibly lead us astray were we to employ them in the present case. It could easily be proved that the movement of increase of the subjacent brain did not correspond with the growth of the component bones of the skull. He quoted Féré and Topinard in support of this view, and gave two examples in which it could easily be seen—viz. (1) the frontal eminence which overlies a different portion of the frontal lobe of the brain in the adult and child; and (2) the different relations which are observed between the squamo-parietal suture and the Sylvian fissure as first noticed by Foulhouza. The measurements must be applied to the brain itself, and for this purpose some means must be taken to preserve its volume and configuration absolutely unchanged after the cranium is opened. To this he had turned his attention, and was now able to prepare the brain, so that when it was exposed *in situ* it would remain absolutely unaltered for at least twenty-four hours. But a further step was necessary. A more extensive comparison between the different brains was necessary than that afforded by columns of figures. It was very essential that the parts of the brain should be fixed and retained in their natural form. For this purpose he had had recourse to models which he had prepared immediately after exposure of the brain. Two models were prepared of each head selected for investigation—viz. (*a*) a model of the head before it was touched; and (*b*) a model of the same head after it had been prepared, and the brain exposed. The brain was exposed on the right side, but narrow bars of the cranial wall were left in the lines of the cranial sutures. Professor Cunningham then briefly alluded to some of the points concerning brain growth which he had observed, but stated that until he was able to obtain specimens under five years old he did not expect to make much advance. In the antero-posterior direction very little difference was observed in the relative length of the frontal, parietal, and occipital lobes above the age of five years. What difference there was could readily be accounted for by individual peculiarities. The temporo-sphenoidal lobe, however, showed some interesting changes as age advanced from childhood to adolescence. It was placed more horizontally in the child; in the adult its tip was turned downwards and inwards, so as to give its long axis a curved direction. Again, its vertical depth in relation to the part of the cerebrum above the Sylvian fissure diminished uniformly and steadily as adolescence and adult life were approached. In discussing whether the relative decrease of the outer surface of this lobe could have any functional significance, Professor Cunningham referred to the recent important investigations of Professor Schäfer upon the temporo-sphenoidal lobe. He also indicated that Dr. Symington had suspected that there was such a decrease in the vertical dimensions of the lobe in question, and had accounted for it on mechanical grounds. The question of cranio-cerebral topography came in as a side issue to the present investigation. There were two distinct methods by which anatomists had determined the relation of the different parts of the brain to the surface of the head—viz., the *sutural*, which had been followed out with great exactitude by numerous investigators, and that method by which, by means of certain lines and measurements made with reference to well-marked prominences, the subjacent brain could be mapped on the surface of the head. The latter plan was the one most interesting to the surgeon, and to it only he would refer. Hare, Seguin, and Reid had each developed a method of this kind. In so far as Hare's method was concerned, he had nothing but commendation to say of it. It was easy of application, and as exact as any such plan could reasonably be expected to be. Reid's method was in some measure a modification of Seguin's, and, in so far as the fissure of Rolando was concerned, he had found it most unreliable. In none of his specimens did this fissure coincide with Mr. Reid's lines, and in one model on the table it would be seen that even a trephine with a diameter of two inches would have failed to expose the upper end of the Rolandic fissure had it been applied according to Mr. Reid's rules. It was a method, further, which, although easy of application to a drawing of a head upon paper, was exceedingly difficult of application when the living head was concerned.—The PRESIDENT said Professor Cunningham's communication was of great practical utility, especially as it appeared that Reid's method was the one that was regularly taught in many schools and studied by a large number of students. Now that cerebral surgery was beginning to make remarkable strides, the localisation of the different portions of the brain in relation to the outside became of more and more importance, and therefore the confirmation of the results obtained by Hare was of corresponding importance. Hare's method differed from Professor Cunningham's, as it consisted in removing the whole side of the skull, while Professor Cunningham left bridges of bone along the line of the suture. In another respect also their methods differed. Hare used no special hardening method, while Professor Cunningham hardened the brain *in situ* with absolutely no shrinking, so that when the skull-cap was removed the cerebral convolutions were seen tightly applied to the dura mater. At the same time, the results showed remarkable uniformity. Hare was of opinion that the hardening tended more or less to displace the brain and make it shrink. He was also averse to freezing the brain, because, when the brain was frozen, unless special means were taken, it was inclined to thaw and become more diffluent than ever. What he relied upon was to get the subjects as fresh as possible. He examined them thirty hours after death.

Professor CUNNINGHAM exhibited a specimen illustrating relaxation of the sacro-iliac joints in a pregnant woman.

Dr. AMBROSE BIRMINGHAM read a paper on the Homology and Innervation of the Pectoralis Quartus and Achselbogen, and the nature of the Lateral Cutaneous Nerve of the Thorax. The points sought to be established in the paper were—1. That the pectoralis quartus is a segmented portion of the great pectoral. 2. That the achselbogen is a derivative of the panniculus. 3. That the pectoralis quartus is supplied by the internal anterior thoracic. 4. That the achselbogen is supplied by the internal thoracic. 5. That the lateral cutaneous nerve of the thorax is the nerve of Wrisberg, associated with more or less of the internal thoracic.

The PRESIDENT read a short paper on the History of the "Nerve to the Anconeus." The history of the nerve involved the morphology of the muscle. The anconeus was usually regarded as a part of the triceps which had wandered downwards from the olecranon process to a more distal point on the forearm. For this view of its morphology two reasons were assigned: (1) continuity with the lower fibres of the triceps; and (2) nerve supply. The author had found in a lizard (Hatteria) that the anconeus was separate from the triceps, but formed an integral part of the extensor carpi ulnaris; he found also that the "nerve to the anconeus" supplied other muscles as well (e.g., supinator brevis), and then joined the posterior interosseus nerve to take part in the innervation of the extensors of the digits. In the alligator he found the extensor carpi ulnaris absent, its place being taken by a large anconeus with a double nerve supply (from the "nerve to the anconeus" and from the posterior interosseous nerve). In man he had found a similar double supply for the anconeus in two out of four subjects he had examined; this arrangement had been described by Luschka. The author concluded: (1) That the anconeus was to be regarded more as a part of the extensor carpi ulnaris than of the triceps; (2) that the "nerve to the anconeus" originally took a large share in the innervation of the muscles on the extensor aspect of the forearm.

THE FIFESHIRE LUNATIC ASYLUM.—On Saturday last, during a thunderstorm, this institution, near Cupar, was struck by lightning and set on fire. The patients, numbering 300, were rescued without sustaining any injury. The damage to the buildings is estimated at over £2000.

Reviews and Notices of Books.

Inebriety: its Etiology, Pathology, Treatment, and Jurisprudence. By NORMAN KERR, M.D., F.L.S. Pp. 415. London: H. K. Lewis. 1888.

OUT of the above subject Dr. Norman Kerr has woven an interesting book, characterised by a wealth of anecdotal illustration, as well as by the free speaking of a partisan. The book aims at affording answers to innumerable inquiries, addressed to the author by "inebriates, by their friends, and by his medical brethren, as to the best course to be adopted in dealing with the inebriate." It makes an earnest protest against the non-recognition of a disease-element in inebriety, and the acknowledgment of only a moral depravity. It appears, however, to be addressed more to the general public than to the medical profession, the author stating, rather as an after-thought, that he is *also* not without hope that the work may be found serviceable to his professional colleagues. This, however, is perhaps inevitable, since it is obvious that, to be of any service at all, the subject of inebriety must be placed vividly before those tempted to the over-indulgence in alcohol long before the craving has reached the stage calling for more purely medicinal treatment. It is better to adopt measures calculated to diminish the risk of fire in our houses, than to trust to the protection of firemen when the conflagration has broken out. By forcing home the idea that inebriety is a disease, as curable as most other diseases, calling for medical, mental, and moral treatment, Dr. Norman Kerr will, it is to be hoped, diminish the number of those who, from small beginnings, go steadily from bad to worse without appealing for help, since they are hopelessly impressed by all their friends that their weakness has its source in moral depravity. The opening chapter plunges boldly into the question of disease as the cause of inebriety. Dr. Kerr adopts rather a wide definition of disease to prove his point, following the broad generalisation of Sir Thomas Watson that disease comprises "all deviation from the healthy standard." He admits, however, that all drunkards are not necessarily the subjects of disease. Inebriety he regards as "an overpowering impulse to indulge in intoxication at all risks." The intimate relationship between insanity and inebriety is evidenced by a number of cases, which are very striking, although very depressing. He acquits tobacco of any necessary relationship with alcoholism, and while admitting the utility of vegetarianism as a temporary change of diet, he does not attach any importance to it as a preventive measure. Of the pathological basis which is to be regarded as the proximate cause of intoxication Dr. Kerr writes picturesquely, without his words conveying any very profound scientific information. It is the "inarticulate cry of a despondent soul for a temporary solace of its woe." It is the "despairing wail of a dejected spirit." It may arise after hæmorrhage, in the crises of nervous prostration from overwork &c.; or may follow upon prolonged melancholic depression. Later he sums up his views of the "pre-paroxysmal pathological antecedent" (*sic*) by resolving this into any morbid alteration of the cerebral substance, any impairment of the nutrition of the brain by abnormal action of any organ or tissue on the circulatory fluid, or any disordered function. This basis appears to be stated with sufficient breadth to include and account for practically anything. He assumes the existence of an "inebriate diathesis" which may be inherited or acquired, and consists in a deficient tonicity of the cerebral and central nervous system with an accompanying defective inhibition. In fact, having made up his mind that more good is to be done by a recognition of a disease-element in inebriety than by abusing the low moral tone of the unfortunate victim, he appears to have a difficult task to prove his point scientifically. He is much more at home with the medico-legal aspects of inebriety. He quotes the customs and laws of other countries with reference to habitual drunkards. The chief faults he finds with our existing legislation are the hindrances to voluntary admission into a retreat, and the difficulty of dealing with those who cannot pay, or who can pay but little, for their board and treatment. His experience in connexion with the Dalrymple Home leads him to speak in hopeful terms of the advantages accruing from enforced abstinence in a retreat, but he is emphatically of opinion that our present legislation is by no means sufficient to successfully grapple with the existing evil. The style of the book should aid in spreading a knowledge of this national disgrace, and from the spread of knowledge should follow reform.

Modern Theories of Chemistry. By Dr. LOTHAR MEYER, Professor of Chemistry in the University of Tübingen. Translated from the German fifth edition by P. PHILLIPS BEDSON, D.Sc Lond. &c., Professor of Chemistry in the Durham College of Science, Newcastle-upon-Tyne, and W. CARLETON WILLIAMS, B.Sc. &c., Professor of Chemistry in the Firth College, Sheffield. London: Longmans, Green, and Co. 1888.

PROFESSOR LOTHAR MEYER'S "Moderne Theorien der Chemie" has for years been familiar to most English chemists who read German, but as unfortunately there are still many students who do not possess this advantage, we hail as an important boon to British science a translation of one of the most philosophical treatises on chemistry of our time. The translation has been entrusted to good hands, and has been executed with care and fidelity. A recent German edition prevented the necessity for emendations, and the German author has therefore most properly been allowed to speak for himself in English. Several modern English works, notably Mr. Pattison Muir's valuable "Principles of Chemistry," have diminished to some extent a want which a few years ago was very keenly felt, but the utility of this book has been so abundantly proved that the scientific men of all English-speaking countries will be glad to find that it is universally available.

The book is divided into three parts, entitled respectively "The Atoms," "Statics of the Atoms," and "The Dynamics of the Atoms." The titles are by no means perfect, but they are sufficiently descriptive, and have at any rate the great merit of brevity. Part 1 is mainly devoted to the consideration of atomic weight. A general account of the discoveries of Dalton, Gay-Lussac, Avogadro, and the other founders of modern chemistry, brings the student to molecules and the kinetic theory of gases. The various modes by which atomic weights are determined and verified are discussed in detail, and minute criticism is applied to each. We must notice as of great practical value the table of molecular weights and vapour densities on pages 37–42, and the tables of specific heats, which begin on page 69. In the discussion of Avogadro's law, the general conclusion drawn from the arguments of Sir William Thomson and others is that gases at a pressure of one atmosphere and a temperature of 20° contain about twenty-one trillions of molecules in a cubic millimetre, while a quadrillion molecules of hydrogen weigh about four grammes. Considerable space is devoted to the periodic law, which the author has himself done much to expand, but we notice with regret that due recognition is not given to Newlands with regard to the discovery of the law. The second part of the book (pages 171–354) contains an excellent account of molecular structure, types, the laws of atomic linking, valency, and the like. Of course it is only in a certain sense that this branch of chemistry can be described as belonging to statics, for all agree that the intra-molecular condition is dynamic rather than static. The doctrine of valency, although pushed at times to the extreme limits of hypothesis, has exercised an

immense influence on chemical progress, and is in its more sober form a mere representation of facts. Its general harmony with the periodic law and with the facts of isomerism, and its supreme value in classification, would alone justify its existence as a theory. That it involves difficulties no one doubts, and these difficulties are fairly considered in this treatise, but as yet there are none that have proved insuperable.

The last, or dynamical portion of the book, deals with chemical change, with the phenomena of unstable equilibrium, apparent alike in mixtures and compounds, the influence of mass in chemical action, and the phenomena due to the so-called physical agents—heat, light, and electricity. Thermal chemistry, which in the hands of Thomsen, Berthelot, and a host of other workers, has attained such vast proportions of late years, receives careful attention. The views of Berthelot are severely criticised; but the partial, if not complete truth of the great French chemist's generalisations is not denied.

Among the faults of the present volume the gravest is the absence of an index, which is a serious detriment to such a book. We must also regret that the "chemistry of three dimensions," which is growing so rapidly in importance, and which seems to offer hope of a new and more searching classification in chemistry, was not included in the plan, but limits of space may well account for this last omission.

New Inventions.

A GUARDED THERMOMETER.

IN the course of some observations involving the record of internal and external temperatures I had the misfortune to break a well-made and apparently strong clinical thermometer while taking a rectal temperature—an accident which, although, as it happened in this particular case, unattended by serious consequences, was sufficiently alarming to induce me to postpone taking the temperature per rectum again until one could devise some means which should obviate the risks and relieve the anxiety attending the use of an ordinary thermometer in this situation. Messrs. Krohne and Sesemann, of Duke-street, Manchester-square, have made for me an instrument which is practically unbreakable, unless thrown violently against some hard substance. It consists of an ordinary glass clinical thermometer encased in a metal guard extending one or two millimetres beyond the shaft and bulbar ends respectively; the portion enclosing the bulb is fenestrated, two out of the four bulbar fenestra being prolonged up the shaft, the one of sufficient breadth to allow of easily reading the scale, the other narrower, thus minimising as far as is consistent with the object in view the amount of metal between the instrument and the surface whose temperature it is designed to record, and so enabling one to register the maximum degree of heat as rapidly as with the unguarded instrument. The guarded thermometer is sixteen centimetres (nearly six inches and a half) in length and two centimetres in circumference, as made for rectal thermometry, but it will be readily recognised that the guard can be adapted to any size preferred. For registering the temperature in the mouth, rectum, or other situations where an accident might be fraught with very unpleasant results, this simple modification of the clinical thermometer has been proved by frequent use to fulfil the requirements of absolute safety and rapid registration, and at the same time it is much less easily broken by careless handling than any other instrument I have seen; and for these reasons I venture to introduce it to the notice of the profession, in the hope that it may supply a want which doubtless many others, who, like myself, have deplored the fragility of their thermometers, have felt when contemplating the débris of these little clinical necessaries.

Leinster-square, W. A. SYMONS ECCLES, M.B. &c.

THE GENERAL COUNCIL OF MEDICAL EDUCATION & REGISTRATION.

TUESDAY, MAY 22ND.

MR. MARSHALL, PRESIDENT, IN THE CHAIR.

THE Council assembled at two o'clock. Two new members were introduced—viz., Dr. George Yeoman Heath as representative of the University of Durham, and Dr. Hector Clare Cameron as representative of the Faculty of Physicians and Surgeons of Glasgow.

The PRESIDENT then delivered his opening address. After referring to the changes in the Council, to the death of Sir G. Burrows, and to the presentation by Sir Henry Acland of the portrait of Mr. J. H. Green, he proceeded: In agreement with the conditions determined by the Council in November last, the Executive Committee have sanctioned the registration of 202 additional foreign medical qualifications obtained by home practitioners already duly qualified and registered before or on the appointed day. Of these, 180 were registered in November and December of 1887, and only 22 in the present year. It seems probable, therefore, that this exceptional privilege of registering additional foreign diplomas will soon cease to be exercised. The two notifications as yet received from the Privy Council, of permission having been granted to a colony to have its duly qualified medical practitioners registered by this Council on a separate colonial Register, relate to New Zealand and to Ceylon; but at present no application has been made by any qualifying medical authority, or by any holder of a diploma granted by such authority, in either of those two colonies; so that, accordingly, this Council has not yet had to exercise the duty assigned to it of satisfying itself as to the sufficiency of a qualification so granted. Some correspondence on this subject has taken place between the Privy Council and the authorities at Melbourne; but as yet the questions at issue do not seem to be clearly understood in the colony of Victoria. The only foreign country the Government of which for the present has had any official communication with the Privy Council on the subject of the registration of its medical degrees is Switzerland. After an interview with Mr. Peel, and from a perusal of documents which, with the permission of the Lord President, were placed at my disposal, I am enabled to state that the correspondence shows, on the part of the Swiss Government, an imperfect appreciation of the powers of the Privy Council under the Medical Acts, and gives the impression of there being great difficulties at present in the way of any mutually reciprocal arrangement being arrived at. Negotiations will, however, be continued, Mr. Peel having communicated to me the substance of a letter just written by him in answer to one from the Foreign Office. The urgency of this question as regards Switzerland is increased by the recent adoption of very harsh proceedings, involving the infliction of fines or the alternative of imprisonment, by the Federal authorities, against certain medical practitioners duly registered by this Council as qualified to practise in the United Kingdom, but who have resided in the Swiss Republic in order to attend to the wants of their own countrymen and countrywomen. In the meantime, this Council may be assured that the interests of the medical profession are thoroughly comprehended, and will be carefully guarded by the Privy Council under the existing law. From the preceding remarks it will be readily understood that the formation of either a colonial or a foreign Register of qualified medical practitioners is not yet within a measurable distance; but as applications may arise—even though in small numbers—from our several colonies, it might be considered desirable for the Council to confer similar powers, with like conditions and reservations, on the Executive Committee, as were granted to that body in regard to the registration of the qualifications of particular foreign universities held by practitioners who were upon the home Register on the 30th of June, 1886. In reference to the existing Register, a question arose during the recess as to whether the degree of B.A.O. of the Dublin University was a registrable qualification under the Medical Act or Acts. The Irish Branch Council, being of opinion that it was so, directed the Irish Registrar accordingly.

This being communicated to me by the General Registrar, and regarded as a doubtful step, I dictated a letter asking whether this action had been based on a legal opinion, and adding certain grounds for my belief that this particular degree was not a registrable qualification. The question having been referred by the Irish Branch Council to its legal advisers, the result was to confirm this latter view; and, accordingly, all the previous entries of that title on the Register have been cancelled, and it will no longer be registered under the present conditions of medical law. Complaints concerning the alleged "misemployment of unqualified assistants," and the alleged practice of "covering," arrive at the office from time to time, four cases of the former and seven of the latter having been submitted to me by the Registrar. In each case the "memorandum" on these subjects sanctioned by the Executive Committee has at once been sent to both the complainant and the person complained of. Further correspondence has usually disclosed the fact that the powers and duties of the Council in regard to such complaints are misunderstood, it being assumed that the Council can or should act as prosecutor as well as jury and judge. It seems therefore advisable once more to repeat publicly the statement that whenever it is desired that the Council should exercise such disciplinary powers as it possesses under the law, its action must be strictly judicial, and that all evidence in support of any charge must be brought to it from without. The special allegations made in the above-mentioned cases of complaint may be ascertained by members of the Council from a document in possession of the General Registrar. In one case only, and that a case of "covering," does the evidence adduced justify, in the opinion of our legal advisers, an inquiry at this present session of the Council. The programme already issued to members indicates the usual subjects which are to be brought before this meeting, which, without suggesting any undue indulgence in regard to its duration, I may remind you, is called for general business. The chairman of the Pharmacopœia Committee will present you with an important report, which will afford evidence of the constantly recurring and increasing watchfulness demanded on the part of those who have charge of that department of the statutory work of the Council. The Statistical Committee will hand in, for reception, and, at the pleasure of Council, for publication in an appendix to the Minutes, a short statement illustrated with tables and three coloured diagrams showing the ratios of the numbers of registered practitioners to the population, and also to the superficial areas, in different districts and towns of England and Wales, at two different periods—viz., in 1881 and 1886. A further and concluding report relating to Scotland and Ireland will complete the analysis of the facts at present collected by the committee. The Income and Expenditure Committee will present a statement relating to the question of equalising our resources with the demands made upon them. The Education Committee have prepared for this occasion an important report in continuation and extension of the work of the late "Practical Education Committee," the proceedings and conclusions of which are recorded in the Minutes of the Council meeting held on May 16th last. Two parts of this report will, doubtless, claim special attention: first, that which relates to the question of the various substitutes for the beneficial purposes attained by the now extinct pupilage; and, secondly, that which deals with the importance of increased attention to general and special clinical work. The duties of the Examination Committee must, I conceive, be delayed for a while by the proceedings involved in the completion of the labours of the Council's inspectors of the final examinations; but its chairman will, doubtless, present this meeting with an *ad interim* report. Having arrived at certain conclusions concerning the best mode of dealing with the important reports of the Council's inspectors of the several final examinations held throughout the United Kingdom, I have assumed the responsibility of offering to the Council the following observations concerning them. In accordance with an instruction issued by the Executive Committee in July, 1887, the inspectors in medicine, surgery, and midwifery, who commenced their official duties on October 1st of that year, have forwarded to me a number of reports on such of the final examinations as had been visited and inspected by them up to the last day of March in the present year. In consequence of the final examinations of certain of the licensing bodies being held during or at the end of the summer session, these have not yet been inspected; and in certain other cases the inspections are not complete. Thus, complete reports as to medicine, surgery, and midwifery, have been received as regards the University of Cambridge, the Victoria University, the University of Dublin, and the Conjoint Examining Board in England. Two reports in medicine and midwifery have been received in reference to the University of London and to the Society of Apothecaries of London. One report in medicine only has been sent relating to the University of Durham, and one in Surgery only referring to the University of Aberdeen, to the Royal University of Ireland, and to the Conjoint Board formed by the Royal College of Physicians, the Royal College of Surgeons of Edinburgh, and the Faculty of Physicians and Surgeons of Glasgow. Lastly, no inspection in any part of the final examinations has been received as regards the University of Oxford, the University of Edinburgh, the University of Glasgow, the King and Queen's College of Physicians of Ireland, the Royal College of Surgeons of Ireland, and the Society of Apothecaries of Dublin. The reports already received are at present in charge of the General Registrar, and are of course accessible to the members of the Council; but any examination of these documents must at present be considered to be confidential, inasmuch as the Executive Committee, in its instructions to the inspectors, has stated that the "reports will not be made public till they have been submitted to a meeting of the Council and to the respective licensing bodies, for any observations they may have to make upon them." Indeed, the Medical Act of 1886, under Section 3 of which the inspectors are appointed, expressly declares that the "Council shall forward a copy of every such report to the body or to each of the bodies which held the examination in respect of which the said report was made," and, further, "shall also forward a copy of such report, together with any observations thereon made by the said body or bodies, to the Privy Council." Moreover, it may be stated that the general conclusions or final verdicts of some of the reports already received are left to be implied, instead of being directly stated; whilst in other cases there occur descriptions of methods of conducting certain examinations which have already been sufficiently explained and commented upon in the "Final Report of the Visitation of Examinations Committee," published by the authority of the Council in an Appendix to last year's Minutes. Hence, it will be advisable, and even needful, to communicate with the several inspectors as to certain modifications in their reports previously to their being transmitted to the respective bodies concerned in them, and therefore previously to their being distributed, together with the replies of those bodies, to the members of this Council, in such a form as would justify their publication. Under these circumstances—namely, that the inspections are not yet complete, and that some of the reports may require slight supervision—it would appear to be desirable to refer these documents, as they are completed in regard to each particular body, to a small sub-committee appointed by the Council or the Executive Committee, who should, in the first place, communicate with the inspectors as to any formal emendations in their reports, and so prepare these for being printed and forwarded to the bodies concerned. Four such complete reports from the several inspectors can forthwith be disposed of in this manner, and thus a commencement be made towards realising the results of the Council's inspections for the present year. The remaining reports, framed after the proposed communications with the inspectors, will probably be more conformable in method, and will accordingly be relatively more speedily dealt with. When all the required reports for the current year have been completed, printed, and forwarded to the several licensing bodies, and when the observations of those bodies have been received, the above-indicated sub-committee might be instructed to arrange them, with or without a commentary, for transmission to the Privy Council, for presentation to this Council, and their subsequent publication. Their ultimate consideration by the Council might be appropriately preceded by their being referred to the Examinations Committee, by which committee they might be considered, together with any other matters relating to examinations, and in due time be reported on to the Council. Should a momentary feeling of disappointment be experienced by any member of the Council at a delay which is quite unavoidable, it may be remembered that time and deliberation are necessary conditions to the due fulfilment of such an extended official

inquiry; that certain well-considered improvements are being steadily introduced into almost every final examination, and that others will be stimulated or suggested by the mere institution and conduct of these inspections. It will, indeed, be shown that, even as the inspections proceed, certain improvements are being introduced in the character of some of these examinations: and a proposal, which will be brought before the Council, to increase the number of surgical examiners appointed by it to assist in the final examination of the Society of Apothecaries, affords a good illustration of an important current change. In the meantime, and without any breach of the temporarily confidential character of the reports, as these are deposited in the charge of the General Registrar, it may be stated that, whilst certain changes are here or there recommended by the inspectors, in no report as yet received is "the standard of proficiency required from candidates so as to guarantee the possession of the knowledge and skill requisite for the efficient practice of medicine, surgery, and midwifery," called in question. Whilst providing for the best mode of dealing with the reports of this the first year's inspections, it will be necessary for the Council to determine the questions whether, and, if so, for how long a further period, the present inspectors should be reappointed, seeing that their present commissions will cease at the end of September. This will also involve the further question whether the Council should continue to institute the same general method of inspecting the final examinations, or some less extended procedure, whether in regard to certain bodies, or in reference to special subjects, or to particular parts of the examinations in those subjects. It will, further be desirable to consider whether, and, if so, when, any other inspections or visitations should be organised with reference to the earlier professional examinations. In bringing this address to a conclusion, I may announce that now and on future occasions the several committees, with the exception of the Business Committee only, will be re-elected at the close, instead of at the commencement, of the session. This is in order to postpone the dissolution and reconstruction of a committee until its report, if any, has been presented and discussed. It has been represented that this rule will be particularly useful as regards the Pharmacopœia Committee, but it will obviously have its advantages in regard to the other committees. I have now only to add that I look forward to what I trust will be, though a brief, yet an interesting and fruitful session.

On the usual motion to enter the President's address on the Minutes,

Dr. GLOVER said he gathered from it that the reports of the inspectors were not to be presented to the Council in their present form, but were to be reconsidered or modified with reference to the reports of previous visitations, and suggested that that would not be a desirable course to adopt.

Dr. QUAIN said it had been ruled that the President's address was not open to discussion, and that any proposal as to the visitations should take the form of a distinct motion.

A letter was read from Sir Henry Acland, the late president, asking the Council to accept a portrait of its second president, Mr. Green, which he hoped would be placed as a companion to the portrait of Sir Benjamin Brodie, and he begged the Council to accept it as an act of homage to both. The characters of these two men, he said, had struck a key-note nearly thirty years ago for the new and complicated work of the Council, a note which the Council had constantly sought to maintain.

Dr. QUAIN moved that the portrait be accepted, with the grateful thanks of the Council, and also made a similar motion with reference to a porcelain plaque representing the arms of the Council for the presidential chair, the gift of Miss Ada Marshall, daughter of the President. He at the same time expressed his deep regret that the complimentary dinner which was to be given to Sir Henry Acland had to be abandoned in consequence of the state of his health.

Sir JOHN SIMON, in seconding the motion, said he desired to add a word of grateful homage with reference to his old master, Mr. Green, and recalled the words of Tacitus, "Ut vultus hominum, ita simulacra vultus imbecilla ac mortalia sunt, forma mentis æterna." The President, he said, had referred to Mr. Green's influence in the Council in its early days, but before that time, when they were almost in the dark ages, he had been the first to announce the great principles of medical reform that had since been adopted. In his pamphlet, in 1831, he had foreshadowed those principles for the guidance of the profession and the public.

The motion was unanimously agreed to.

The Business Committee was then appointed, consisting of Mr. Wheelhouse (chairman), Dr. Struthers, and Dr. A. Smith.

The usual tables were presented showing the results of professional medical examinations during 1887; the results of preliminary examinations; exceptional cases in regard to length of course of study, and results of professional dental examinations during the same period; also results of competition for commissions in the department of the Royal Navy, and the results of examinations by the College of Preceptors.

On the motion for entering these documents on the Minutes,

Dr. STRUTHERS called attention to the fact that in the first table there was no record, in the case of some of the universities, of the results of the M.D. examination; and to some of the entries in the second table respecting preliminary examinations, stating that the information required could not be supplied, or that the return was "not authorised."

The REGISTRAR, in answer to some questions on the subject of the tables, stated that they were always compiled with great difficulty, and were more or less incomplete owing to the non-receipt of the required information from the bodies concerned, notwithstanding repeated solicitation.

Mr. MACNAMARA complained that the information sought by the Council was not supplied, and asked if the Council was entitled to demand it.

Dr. HERON WATSON said that the usual return had not been received this year from the army, the reason being that there had been no examination.

The PRESIDENT said that the Council had no power to demand the information required from the various bodies.

The motion for entering the tables on the Minutes, subject to corrections, was agreed to.

The following report was received from the Pharmacopœia Committee.

"The committee report to the Council that 25,095 copies of the last edition of the Pharmacopœia have been sold; that the amount received for the work has been £4875 16s. 6d.; and as the expenditure in its preparation has been £3837 17s. 4d., there remains, including the estimated value of 905 copies remaining in stock, a balance in favour of the Council of £1209 8s. 2d. They have received from Professor Attfield a report on the Pharmacopœia for the year 1887, and have directed this report to be printed, and a copy to be sent to every member of the Council. The committee recommend that the vacancy caused by the lamented death of Dr. Haldane should be filled by the Council during the present session. The reply of the Lord President of the Privy Council to a letter from the solicitor to the Medical Council on the subject of the Pharmacopœia being the standard authority for the composition and preparation of the medicines therein described, has been considered by the committee; and the committee recommend that the solicitor be requested to prepare a statement showing, either in detail or in abstract, the Orders in Council or clauses in Acts of Parliament which relate to the subject. "RICHARD QUAIN, M.D."

Dr. QUAIN, in moving the adoption of the report, congratulated the Council on the fact that the Pharmacopœia was not a loss but a gain to the Council, showing as it did a profit of £1200, and urged the importance of making the work a recognised standard for all the preparations which it contained. Some doubt, he said, had been thrown upon its authority. There were various Acts of Parliament dealing with the subject which needed consolidation, but there was little doubt that there were abundant means of enforcing penal measures in the event of any variation from the Pharmacopœia standard.

Mr. WHEELHOUSE seconded the motion.

The report of the committee was adopted.

A fourth report by the Statistical Committee was received, and ordered to be entered as an appendix to the Minutes.

A communication was received from the Lord President of the Privy Council transmitting an Order in Council of the 29th of December last, declaring that on and after the 1st of January, 1888, the second part of the Medical Act shall be deemed to apply to Ceylon.

A report was received from the Executive Committee, who had been requested "to consider under what circumstances a registered medical practitioner would render himself liable to the censure of the Council in reference to the employment of unqualified assistants." The report was as follows:—

In regard to this reference, the Executive Committee, without attempting to make a formal definition of the misconduct in question, report to the General Council that, in its opinion, a registered medical practitioner would render himself liable to the censure of the Medical Council in case of the employment of an unqualified assistant in the

practice of medicine, surgery, or midwifery on behalf and for the benefit of such registered practitioner, either in complete substitution for his own services, or under circumstances in which due personal supervision and control are not, or cannot be, exercised by the said registered practitioner. The Executive Committee furthermore takes this opportunity of stating, in reference to the procedure known as "covering," that in its view a registered practitioner *covers* an unregistered person when he does, or assists in doing, or is party to, any act which enables such unqualified person to practise as if he were duly qualified.

In submitting to the General Council this report on the reference, the Executive Committee would, however, call attention to the following resolution passed by the Council on April 21st, 1883:—

That the Council ask for legislation to the effect that any registered practitioner practising for gain, who knowingly and wilfully deputes a person not registered or qualified to be registered under the Medical Act to professionally treat on his behalf, in any matter requiring professional discretion or skill, any sick or injured person, shall be subject to the same legal liabilities as a person who falsely represents himself to be a legally qualified medical practitioner; but with special proviso that such enactment shall not hinder any duly regulated training of pupils in medical schools or otherwise by legally qualified practitioners, nor the use of trained pupils in partially treating the sick or injured under the direction, supervision, and responsibility of such practitioners, nor any legitimate employment of nurses, midwives, or dispensers.

The report was ordered to be entered upon the Minutes.

Communications were received in regard to the B.A.O. degree, arising out of the Irish Branch Registrar's forwarding such qualifications for insertion in the Medical Register. The Irish Branch Council had been informed that the President was of opinion that the degree was not registrable. Counsel's opinion had been accordingly taken upon the subject, and as it supported the President's view the Branch Council had rescinded its previous resolution on the subject, and had directed the Registrar to remove any degrees of B.A.O. which he might have registered.

SOCIETY OF APOTHECARIES OF LONDON.

Mr. BRUDENELL CARTER moved: "That inasmuch as the term for which assistant examiners to the Society of Apothecaries of London were appointed by the Council will expire upon the first day of July next ensuing, and inasmuch as it is the desire of the Society, expressed through its representative on the Council, that the number of these examiners should be increased to five, the Council do now proceed to appoint five assistant examiners to the Society, each one of whom shall be an examiner in surgery and shall receive an annual stipend of £100." He said it would be remembered that at the last meeting some discussion had arisen as to the number of examiners in surgery to be appointed by the Society of Apothecaries, and he undertook this year once more to bring the subject before the Council. He then asked for the appointment of three surgical examiners, and the Council had complied with his request. The experience of the past twelve months had shown that the surgical department of the Examining Board had been somewhat undermanned, and he now requested that the number of the assistant examiners should be increased to five. It might not be uninteresting to the Council to know that the examinations might be fairly assumed to stand practically on the same level as those of the other examining bodies. He had made a comparison of the results of the examinations of the Conjoint Board and of the Society of Apothecaries, and he found that the Conjoint Board in the final examination in surgery rejected 84 candidates and passed 123, having 1 rejected to 1·46 passed. The Society in the same examination rejected 79 and passed 119, having 1 rejected to 1·05 passed. In the final examination in medicine the Conjoint Board rejected 32 and passed 111, having 1 rejected to 3·47 passed. The Society in the same examination rejected 79 and passed 181, having 1 rejected to 2·3 passed. The Society had not separately recorded the results of the final examination in midwifery, but had presumably lumped them with the final examination in medicine. In midwifery, at the final examination, the Conjoint Board rejected 45 and passed 122, having 1 rejected to 2·7 passed. Taking the results together, the Conjoint Board had a total of 77 rejected and 233 passed, being in the proportion of 1 rejected to 3 passed; while the Society had 1 rejected to 2·3 passed, so that the examination appeared to have been the more strict of the two. He brought forward those figures to satisfy the Council that the examinations conducted at Blackfriars had been in every respect conducive to the utility of the profession, and to securing the fitness of the men who entered it through the portals of the Society.

Sir JOHN SIMON seconded the resolution, which was agreed to without discussion.

Mr. BRUDENELL CARTER said he had given notice to move "that the assistant examiners so appointed by the Council shall be at liberty to enter into engagements with the Society to examine also in anatomy"; but as he understood that the motion was unnecessary he proposed to withdraw it.

Permission to withdraw the motion was granted by the Council.

Sir WILLIAM TURNER said that when sitting on the Medical Acts Commission he had a strong impression from the evidence that the anatomical examination of the Society was altogether inadequate, and required strengthening. He hoped that it would be strengthened, and that proper material would be provided for it. It appeared from the evidence that the only material they had consisted of a few bones and dry preparations.

Mr. BRUDENELL CARTER moved: "That, in accordance with the foregoing resolutions, and with the request of the Society, made through its representative on the Council, Messrs. Makins, Walsham, Andrew Clark, Arbuthnot Lane, and W. Adams Frost be, and are hereby appointed by the Council to be, surgical examiners to assist the Society of Apothecaries of London in the conduct of its qualifying examinations." He said it had been a question whether the Council should merely be asked to appoint five examiners, or whether certain names should be submitted for appointment. The President's advice had been taken on the subject, and the names read were accordingly submitted by the Society of Apothecaries. The advice appeared to depend upon the sound principle that any body which was entrusted with the performance of a certain work should be left as unfettered as possible in the choice of its agents, just as a general was permitted to select the members of his personal staff although they were appointed by the Crown. The gentlemen whose appointment he moved were eminent men of the profession. Three of them were appointed by the Council last year, and the additions he proposed were Mr. Arbuthnot Lane and Mr. W. Adams Frost. Mr. Lane possessed great scientific knowledge, and would not fail to add to the strength of the board. In nominating Mr. Frost the Society desired to remove from its Examining Board the reproach which applied to too many boards, that they had not an examiner qualified to examine in ophthalmic surgery.

Sir JOHN SIMON seconded the motion.

Sir WILLIAM TURNER inquired whether the application ought not to be made by the Society itself in writing.

Sir JOHN SIMON said that the application of the Society's statutory representative ought to be considered sufficient.

Mr. BRUDENELL CARTER said his resolution had been submitted to the Society of Apothecaries and received their complete consent. He had been authorised to make the application.

After some discussion on this subject (several members regarding the application as irregular, not being in writing), the wording of the resolution was slightly altered—viz., "That in accordance with the foregoing resolution and on the application of the Society, made by its authority through its representative," &c. The resolution as thus altered was agreed to.

Dr. STRUTHERS said he hoped it was not to be inferred from Mr. Brudenell Carter's remarks that the Colleges of Surgeons of Edinburgh and London were not capable of examining in ophthalmic surgery.

The PRESIDENT said that in the College of Surgeons in England such examinations took place, and that in the Conjoint Examination a dark room and suitable instruments were provided.

The Council rose at four o'clock, there being no further business ready to proceed with.

WEDNESDAY, MAY 23RD.

MR. MARSHALL, PRESIDENT, IN THE CHAIR.

The Council having resolved itself into committee,

Dr. STRUTHERS brought up the report of the Educational Committee, to whom it had been referred, "to consider and report on all matters concerning preliminary and general education and examination, the registration of medical students, and the course of professional study." The report referred to former recommendations of the Council, and set forth the courses of lectures, hospital attendance, and instruction in the subjects of final examination required by the Examining Board in England by the Royal College of Physicians and the Royal College of Surgeons; the regula-

tions for the Conjoint Examination by the Royal College of Physicians of Edinburgh, the Royal College of Surgeons of Edinburgh, and the Faculty of Physicians and Surgeons of Glasgow; and the regulations for the conjoint examination by the King and Queen's College of Physicians and the Royal College of Surgeons in Ireland. It then dealt at length with the subjects of pupilage, common and infectious diseases, methods of teaching in hospitals, pathological and therapeutical instruction, midwifery, insanity, clinical examinations, and the relation of lectures to practical work, and concluded by the following recommendations:—

1. That all candidates for the final examination be required to produce evidence that they have attended for six months the practice of a public dispensary, or the out-door practice of a hospital, or have acted for six months as assistant to a registered practitioner. 2. That all candidates for the final examination be required to produce evidence of having studied the subject of fever in its various forms, as far as local circumstances will permit, for a period of not less than three months, under recognised clinical instructors. 3. That every student should be required to attend for three months on the practice of a lying-in hospital, or that he should have been present at not less than twelve labours, at least three of which he should have conducted personally under direct clinical supervision. 4. In regard to hospital attendance: That means be taken, as far as possible, to ascertain the regularity of the attendance that all students shall, as far as possible, have served as dresser and as medical clinical clerk, and have availed themselves of the opportunities of attending the ophthalmic and other wards for special diseases; that the designation "Clinical Instruction" be substituted for the designation "Clinical Lectures"; that there be regulated clinical instruction to limited numbers; and that the certificate bear that the attendance has been, during a stated number of months, on "hospital attendance with clinical instruction." 5. That greater attention be given to instruction in pathological anatomy than is usually required in the curricula of the examining bodies, and, with this view, that a course of not less than three months' lectures on pathological anatomy, with practical instruction, should be included in the curriculum of all the examining bodies, and that it be made a separate subject of examination. 6. That it is desirable that candidates for examination be required to have availed themselves of the opportunities within their reach of studying insanity. 7. That, in order to afford due time for clinical work, it is desirable that the number of systematic lectures be diminished. 8. That the extreme subdivision of examinations for admission to the Medical Register is prejudical to sound professional education, and should be discouraged.

Mr. WHEELHOUSE, in moving the adoption of the first recommendation, said that one of the great difficulties attending the drawing up of the report had been the consant recurrence of the question as to the advisability or otherwise of a return in any shape to the old system of apprenticeship. There was a very widespread feeling in the profession that the education of the present day was deficient in regard to every-day diseases with which medical men come in contact, and that there was not sufficient opportunity of studying them in the days of pupilage. In the days of apprenticeship such opportunities were afforded, but the general impression was that the Council would not sanction a return to that system. The committee had desired to ascertain some way of obtaining the advantages formerly acquired by apprenticeship, and it appeared to be the general impression that there was in the country a vast amount of material of which no use was now made in the education of medical men. There were many county hospitals and public dispensaries scattered all over the country where common diseases were daily seen, and if pupils could have the opportunity of seeing them there the old system of apprenticeship would no longer be necessary. If all the examining bodies could be induced to make a provision by which students might be able to study at such institutions, and afterwards have their acquirements fully examined into, that might prove to be a solution of the most difficult part of medical education.

Dr. CHAMBERS, in seconding the motion, said he had thought that it was possible to come very nearly to a return to the old system; but on looking into the question he found that it could not be done, and that the amount of material referred to by Mr. Wheelhouse was larger than he had imagined. The proposal of the committee would not only be a substitute for, but a vast improvement upon, the old method.

Mr. MITCHELL BANKS said there could be no doubt that there was an agitation in favour of a return to the pupilage system, and the committee had endeavoured to consider first its utility and then its practicability. He believed that no one actively engaged in teaching now considered that the advantages gained by the old system would in any way compensate for the loss of time so bestowed. There were only three times when pupilage could be resorted to—namely, before, during, and after the medical student's career, and there were great difficulties in the way of each of those periods. It might also be difficult to obtain pupilage at the time required, and to have it properly superintended as a real portion of medical education, there being no hold on the practitioner who gave the certificate. With regard to the practice of a public dispensary, or the out-door practice of a hospital, the idea had been taken from an existing practice in Scotland, where it had proved of the greatest service. It consisted in the attendance, under proper supervision, on the out-door practice of a dispensary or hospital. When he was himself a student he went over one of the dispensaries, visited the patients at their own homes, and prescribed for them. He was generally accompanied by a senior student to assist him, and in case of any special difficulty or trouble he fell back upon his superior at the dispensary. In that way he taught himself a certain amount of private practice, learning to recognise measles, whooping-cough, and other minor ailments. That, he believed, was a very useful and practical method of enabling the student to teach himself.

Sir JOHN SIMON inquired whether the proposal of the committee was intended to be additional to the present requirements, and suggested that if it was so it should be more clearly expressed.

Mr. WHEELHOUSE said it was intended to be additional, and proposed that the resolution should be thus altered: "That, in addition to the requirements at present enforced with respect to hospital attendance and duties, all candidates, &c."

Mr. MITCHELL BANKS said that what the committee meant was not a mere attendance on the out-door practice as conducted in the out-patients' room of the dispensary or hospital, but attendance on the patients at their own homes.

Sir JOHN SIMON said it ought to be made a real thing and not a sham, and he suggested that the attendance should be "under proper supervision." The certificates of medical schools were often very slippery things, and if any practitioner or dispensary were to be allowed to give certificates the question would arise "*quis custodiet custodes?*—who would supervise the supervisers?"

Dr. KIDD said that in Scotland the provision was that the certificates should come from "public dispensaries specially recognised by any of the corporate bodies."

Dr. BANKS thought that there was great difficulty in carrying out the proposal of the committee in Dublin. He doubted whether the boards of the dispensaries would sanction the students visiting the sick and prescribing for them in the manner stated by Mr. Mitchell Banks. The last condition with regard to the student acting for six months as assistant to a registered practitioner would be impracticable, there being no such thing known in Ireland as an assistant.

Dr. GLOVER suggested the substitution of the word "pupil" for "assistant." He regretted that the matter had been abruptly forced upon the consideration of the Council. The arrangements of the previous day did not reflect great credit upon the new method they had adopted. At four o'clock the Council suddenly found itself in the position of the unemployed, and on the present occasion they had suddenly thrown at their heads for discussion one of the most important and interesting reports ever brought forward. If the system of governing by committees was to be effective, and if the committees were to any extent to supersede the Council and to save its time, the first condition should be that their reports should be duly at hand a long time before the meeting of the Council.

Dr. STRUTHERS said he was quite willing to accept the word "pupil" instead of "student."

Dr. GLOVER said the method proposed by the committee had been recognised by the conjoint Colleges of London, the student being required to pass one winter and two summer sessions in one or more of the following ways:—"(*a*) Attending the practice of a hospital, infirmary, or other institution recognised as affording satisfactory opportunities for professional study; (*b*) receiving instruction as a pupil of a legally qualified practitioner holding such a public appointment, or having such opportunities of imparting a practical knowledge of medicine, surgery, or midwifery, as shall be satisfactory to the two Colleges." The method recognised by the two Colleges of London, who were the largest qualifying bodies in the country, could not be a very terrible thing. Mr. Banks, although last year he had pointed out all sorts of difficulties in the way of pupilage, admitted that when he was a student in Edinburgh he found time to visit patients at their own houses under the guidance of one of the medical officers of the dispensary, who were themselves general practitioners. There was now a growing objection to hospitals being used for anything but the graver class of

cases, and the teaching required by the student could not be learned in the out-patient department of a hospital; he could only learn it properly at the homes of the patients, where he could see cases of whooping-cough, measles, and the like, which were not, as suggested, "little complaints."

Mr. MACNAMARA said that the recommendation of the committee would be inapplicable in Ireland. He doubted whether the committees of the medical institutions would sanction any such practice as Mr. Mitchell Banks had described in his own experience. As to pupilage, it was the custom in Ireland for the assistant to stay at home and simply compound drugs while the practitioner was visiting his patients. The proposed system might do for England and Scotland, but it ought not to be forced on Ireland.

Mr. LEISHMAN, in supporting the proposal of the committee, said that if practice at a public dispensary involved, as had been stated, out-door practice, the alternative suggested would be reduced to two. Instead of discouraging out-door attendance in connexion with dispensaries he highly approved of it, and thought it would be the best way to secure the results desired by Dr. Glover. It was not, however, possible to establish that system in every school. He thought that the three alternatives should be allowed until they could be reduced to three, and he hoped that that day would soon arrive.

Dr. BRUCE supported Dr. Glover's suggestion to alter the word "assistant" to "pupil," and alluded to the advantages gained by the student when assisting a general practitioner. There was very little opportunity of becoming familiar with fevers in hospitals, but in general practice the cases were actually seen and handled. True, it was not every practitioner who could teach effectively, but students would soon be able to ascertain where to go for efficient instruction and guidance.

Sir GEORGE MACLEOD said that many years ago he carried out the proposed system in connexion with a Glasgow hospital, but he found that the general practitioners were greatly opposed to it on the ground that it took from them a good deal of practice among their poorer patients. At the Royal Infirmary there used to be a good deal of typhus and other fevers, which the students had the opportunity of seeing, but, owing to the interference of the sanitary authorities, they no longer had that advantage.

Dr. HEATH supported the motion, and expressed his opinion that the old apprenticeship system was of great practical value.

Mr. TEALE said the Council appeared to be getting into a dilemma, and, if the committee's proposal were insisted upon, they would either be falling foul of Ireland, or would be simply re-enacting former resolutions.

Dr. BANKS said there would be no difficulty with regard to Ireland if it were understood that the resolution applied to practice in a public dispensary under the supervision of a medical officer.

Dr. WILKS thought that the proposed measure would prove futile, and that something stronger was needed.

Mr. CARTER asked what kind of dispensary was contemplated by the resolution. There were dispensaries of various kinds throughout the country. In connexion with the Poor-law dispensaries, the medical officers sometimes visited patients at their homes; but the Local Government Board had stringent regulations as to the use which might be made of unqualified assistants by the medical officers. With regard to charitable public dispensaries, the resident medical officers were usually quite young men receiving small stipends, and it might be a question as to how far they would be competent as instructors. Then there were provident dispensaries governed by committees with four or five medical officers. Some kind of definition was needed in order to render clear what was meant by "dispensaries" and by "practice," because as the words stood they might be satisfied by the pupil never going to the homes of the patient at all, but only to a dispensary building. As to out-door practice in a hospital, it did not mean visiting the homes of the patients, which was not done in connexion with English hospitals. The six months' pupilage with a registered practitioner was, he believed, the most valuable of the recommendations.

Dr. MOORE said that if the committee's proposal were carried out in Dublin, it would be at the expense of hospital teaching and dispensary practice. It needed the best educated man to do dispensary work, for he had to deal with the gravest diseases, and to get through a great number of cases in a very short time. In Dublin the younger men devoted an enormous amount of attention to hospital work, and they could never have enough of it.

Dr. HAUGHTON said he had no objection to the six months' pupilage to a registered practitioner in England, but he objected to its introduction into Ireland. The circumstances of Ireland were different from those of England and Scotland. On visiting the home of a patient, the first question the practitioner would be asked was not whether he was medically or surgically qualified, but where he went to on Sunday morning—what was his religion; and unpleasant consequences might arise if the wrong pupil went to the wrong house. (Laughter.) Indeed, the religious difficulty was absolutely insuperable. The intentions of the committee would be best carried out in Ireland by means of the out-door dispensary work in the hospitals.

Dr. KIDD said that every medical student in Ireland could attend one of the union hospitals, and there have an opportunity of acquiring sound practical knowledge as to the treatment of minor complaints. He supported the recommendation of the committee with regard to the three alternatives.

Mr. COLLINS protested against the idea of there being any "religious difficulty" in connexion with medical study or practice in Ireland.

The PRESIDENT said he agreed with Dr. Kidd's observation as to the use that might be made of union hospitals in Ireland. He knew, however, that it was the opinion of many eminent men in Dublin that a young man could not commence his medical career in a better way than by serving for a limited time as a pupil to a general practitioner.

Dr. HUMPHRY said that the burden already laid upon the medical student was almost greater than he could bear, or than was compatible with a good education. Of all parts of his education there was none to compare with that which he received in the hospitals of the country, and anything which would detract from that he should regard as an irreparable evil. The student there saw cases which he might have to treat in after-life, and which, but for such opportunities, might turn out to be great disasters. There was a danger of their neglecting a clear comprehension of the principles of the profession in their great earnestness about attention to "practical points." If the alternative of attending the out-patient practice of a hospital were adopted, it would prevent the resolution from being mischievous or impracticable. No doubt it was a great advantage to the student to see patients at their own homes. He did so himself when a student, and it did him a great deal of good, but it was not clear whether the same thing could be said of the patients. (Laughter.)

Sir DYCE DUCKWORTH said that in the discussion very little reference had been made to the London schools. Those engaged in teaching in the great schools of London were fully aware of the alleged deficiencies of the candidates they were said to turn out; but could it be suggested they were a whit behind those who had been brought up under the old apprentice system? They might not be in all respects quite so handy; but could they expect at the end of four or five years that a young man should be fully learned in all the branches of the profession, with an experience of ten years' practice at the same time? Those who remembered the enormous amount of labour which the student had now to undergo could not help sympathising with every young man who undertook it. Considering the wide field over which the examinations ranged the general responses of the candidates were exceedingly good, and showed that the young men had been well and practically prepared. In the out-patient departments of the hospitals every class of disease was presented. If anyone would attend at St. Bartholomew's Hospital at 9 o'clock in the morning he would see the rooms thronged with illustrations of every kind of disease, simple and complicated; he would also see distinguished teachers surrounded by pupils earnestly watching them at work, and observing the methods employed, afterwards following the patients to their several departments, where they were seen by special physicians and surgeons. He could not conceive a better system for the student, and it was carried out every day in all the great hospital schools in London. It would be impossible for the London student to visit the slums under competent teachers. The London system would have to be conducted according to the present arrangement. During the last five years an enormous improvement had taken place in the management of the out-patients' departments, so that students were brought face to face in a practical manner with disease in every form.

Dr. HERON WATSON said that the modern method of education took too little account of the human feelings and sentiments which ought to be carried into every house of sickness. If a student had the opportunity of going into the houses of the patients and seeing the wretched circumstances in which they were placed, he would have the opportunity of learning a lesson that he would never forget and that would fit him for practice in any sphere of life. He remembered the case of a well-educated young practitioner of nervous temperament, who had not had the benefit of such opportunities, being sent for by a lady of position, who was taken ill at an hotel. He felt her pulse for about ten minutes, until she thought he was going to sleep. After trembling and prespiring for some time, he at length gasped out "What is your name?" and the next question was "What age are you?" (Laughter.) Students were not taught how to deal with patients as human beings.

Sir WILLIAM TURNER congratulated the committee upon having drafted a clause which had met with so much commendation. It was on the same lines as a previous recommendation of the Council, only a little more specific, and he hoped that in communicating it to the bodies that fact would be duly stated.

Dr. STRUTHERS said the custom of six months' attendance on dispensary practice had long prevailed in Scotland, and it had been found very advantageous.

Dr. GLOVER said that the experience of a private practitioner was better than that of any Scotch dispensary. It had been said that not every general practitioner was fit to instruct his assistants. Could not the same thing be said of hospital surgeons? A student might be safely left to find out where he could get his information. He agreed with what had been said as to the burdens placed upon students, and hoped that if they were put on in one direction they would be taken off in another. To send patients out without having seen cases which would make up five-sixths of their ordinary practice was cruelty and fraud both upon themselves and upon the public. Sir Dyce Duckworth had magnified the out-patient department of the London hospitals. There was, however, a strong and growing feeling that the out-patient department of hospitals must be modified. He had himself known a patient with a lingering disease go to St. Bartholomew's Hospital at 10 o'clock in the morning and leave at 4 o'clock in the afternoon in a state of complete exhaustion. He denied the statement that every variety of disease could be seen in the out-patient department of a hospital. The common law of the country would expose any person to a penalty who took measles or scarlet fever to an out-patient department.

Sir DYCE DUCKWORTH said that such cases came in large numbers.

Dr. GLOVER said that the cases were immediately removed, and the students had no opportunity of learning anything of infectious diseases. Twenty or thirty years ago it was possible, but now it could not be done.

Mr. MITCHELL BANKS maintained that there was no better mode of carrying out what the committee desired than by means of the out-door work of the dispensaries.

Sir DYCE DUCKWORTH repeated that infectious diseases were constantly admitted into the London hospitals, though scarlet fever was now excluded from them, to the great dismay of all teachers. It was impossible for seventeen hundred students to go to one small Fever Hospital, and the result was that the public was suffering from the ignorance of the general practitioner in regard to the treatment of that disease, which was one of the plagues of the country.

Sir WILLIAM TURNER asked what was meant by a "recognised" practitioner. He objected to the term, and protested against a general practitioner having to apply to the bodies to know whether he should be recognised as a competent instructor. He thought that if a practitioner were registered and engaged in practice that should be taken as a sufficient evidence of competency.

After some discussion on this point, the wording of the resolution was slightly modified, and it passed in the following form:—"That, in addition to the requirements at present in force with respect to hospital attendance and duties, all candidates for the final examination be required to produce evidence that they have, under proper supervision, taken part as pupils for six months in the practice of a recognised public dispensary, including the visitation of patients at their own homes, or in the out-patient practice of a recognised hospital, or have acted for six months as pupil to a registered practitioner either holding such a public appointment or having such opportunities of imparting practical knowledge as shall be satisfactory to the examining bodies."

Dr. HAUGHTON then moved the next recommendation: "That all candidates for the final examination be recommended to produce evidence of having studied, as far as local circumstances will permit, the subject of fever in its various forms for a period of not less than three months under recognised clinical instructors." He said that some time ago, when the fever question was under discussion, Sir William Gull had astonished him by saying that such had been the progress of medical and sanitary science in recent years that very soon the student would have no opportunity of studying fever at all. The words had hardly been uttered six weeks when the terrible plague of fever broke over London, showing the absurdity of such vague predictions. The protection afforded by allowing a number of young people to grow up without ever having had scarlet fever would be followed sooner or later by the penalty of an outbreak amongst the population. Great difficulties had arisen from the interference of sanitary authorities. Fever hospitals did not attract students; not that they were afraid to run the risk of fever, but for the simple reason that the teachers were not there. A young man of brains did not like to devote his life to the study of one or two particular forms of illness. It was necessary therefore to bring the fever to the student and not take the student to the fever. Formerly many young men went out into practice who were quite unable to diagnose typhus and other fevers in their early stages.

Dr. BANKS, in seconding the resolution, said he knew from long experience that students avoided fever wards, and preferred the non-contagious cases, and it was for that reason that in Ireland the examining bodies had come to the conclusion that attendance on fever cases should be rendered compulsory. Already the most beneficial results had been observed from the more extended knowledge thus imparted.

Dr. MOORE said it was impossible to learn fever in three months. A single case of typhoid might run over that period.

Sir DYCE DUCKWORTH said that the general hospitals took in enteric fever. Typhus fever did not exist, not having been known for the last five or ten years. Relapsing fever came into general hospitals, therefore the word "fever" in the resolution meant little more than scarlet fever and small-pox.

Dr. GLOVER asked whether the expression "recognised clinical instructors" would include the general practitioner. The practice of many private practitioners would supply abundant materials for such diseases.

The debate was then adjourned, after which the Council resumed. Some formal business was then transacted, and the Council adjourned.

THURSDAY, MAY 24TH.

MR. MARSHALL, PRESIDENT, IN THE CHAIR.

The Council was engaged during the greater part of the day in considering the case of Richard Percy Woodroofe (registered as Licentiate of Apothecaries' Hall, Dublin, 1884), who was summoned for having acted as a "cover" to John Stamford Walton, of Northallerton, an unqualified person. Evidence having been given in support of the charge, and Mr. Woodroofe having been heard in his defence, and expressed his regret if he had unwittingly acted in an illegal manner, the Council deliberated in private, and on the readmission of the public it was intimated that in the opinion of the Council the offence charged against Mr. Woodroofe had been committed, but that taking into consideration that he had altogether ceased to pursue, and had pledged himself not to renew, his conduct, and had prayed for a merciful consideration of his case by the Council, the Council did not see fit to proceed further in the matter beyond requesting the President to admonish him severely.

The Council then considered the case of George Thomas Ockleford Crocker, who was on the Dentists' Register as "in practice before July 22nd, 1878," and on January 28th, 1880, there was added the qualification of "Lic. Den. Surg. Fac. Phys. Surg. Glas., 1880." On May 7th, 1888, the Faculty erased his name from the list of their licentiates on the ground that he had violated the obligation in the declaration which he subscribed on admission, that he would not "advertise or employ any other unprofessional modes of attracting business." The Council, after hearing a statement of the facts, ordered the qualification to be erased from the Register.

A full report will appear next week.

THE LANCET.

LONDON: SATURDAY, MAY 26, 1888.

WHILE the subjects under the consideration of the General Medical Council have been less controversial than some of those which have formerly engaged its attention, the present session is by no means devoid of interest to the profession, and especially to its members practising in the colonies or in foreign countries. As yet, the President announced, but two notifications have been received from the Privy Council of permission having been granted to a colony to have its duly qualified medical practitioners registered by the General Medical Council on a separate colonial register; but it may be anticipated that this is only matter of delay, and that licensing bodies in the colonies will not be backward in claiming the advantage of having the degrees they confer recognised by the Medical Council. Again, Switzerland, the President stated, is the only foreign country that has officially communicated with the Privy Council on the subject of the registration of its medical degrees; but in regard to that country there is urgent need for an understanding to be arrived at, for proceedings, which Mr. MARSHALL properly characterises as harsh, have been instituted in Switzerland against English practitioners registered by the Medical Council, and engaged in treating their own fellow countrymen resident in that country. These proceedings, we learn, involve the infliction of fines and imprisonment, and if persevered in are calculated not to be without their effect in deterring English people from visiting Switzerland for health purposes. It may be hoped that the influence of the Foreign Office will be able to make clear to the Swiss authorities the desirability of some agreement such as Mr. MARSHALL has indicated.

The two subjects of especial home interest which came before the Medical Council related to the employment of unqualified assistants and to the introduction of a more practical element into our system of medical education. The first appeared in the form of a report of the Executive Committee, who had been requested to consider under what circumstances a registered medical practitioner would render himself liable to the censure of the Council in reference to the employment of unqualified assistants. They properly took the view that such assistants should not be employed in complete substitution for or without the due personal supervision of a registered practitioner, and they called attention to the need for legislation rendering registered practitioners who offend against this principle liable to the same legal penalties as a person who falsely represents himself to be a legally qualified medical practitioner. There ought, indeed, to be no delay in affording the public the protection that this proposal, if adopted, would give. The second subject was fully discussed in a report from the Education Committee. This report, which has evidently been prepared with considerable care, shows the difficulty of adding further to the claims upon the time of the student, but the committee have felt that clinical work might properly replace to some extent systematic lectures. The proposal of the committee was somewhat modified before final adoption by the Council, but eventually it was agreed to recommend to examining bodies that candidates for the Final Examination should be required to produce evidence of having taken part as pupils in the work of an out-patient room of a hospital or dispensary, or of having acted for six months as pupil to a registered practitioner having the opportunity of imparting such practical knowledge as shall be satisfactory to the examining bodies. If the intention of the Council can be carried out, it will doubtless add to the fitness of the student to undertake the important responsibilities which will devolve upon him in practice. Much of the value of this alteration will, however, necessarily depend upon the view which the teaching practitioner takes of his duties in this matter, and it is not at once obvious how the examining bodies will control the manner in which the pupil shall be employed. It is more than probable that this will have hereafter to be defined.

Although the reports of some of the Inspectors of Examination have been received, they will not at once be made public; but it is satisfactory to learn from the President that no serious objection has been taken to the manner in which the work of examining is conducted. Modifications of procedure will doubtless follow the visits of the Inspectors, and greater uniformity of method will result. At the time of application for an increase in the number of Examiners in Surgery at the examinations of the London Society of Apothecaries, some interesting figures were quoted showing how closely that of the Society approximates to the examination of the Conjoint Board in its results. The facts as to other examinations will doubtless be fully stated in due course.

THE recent discussion at the Royal Medical and Chirurgical Society upon the influence of residence at high altitudes upon phthisis brought into strong relief both the high value attached to this line of treatment by some eminent authorities and the utter scepticism with which it is regarded by others. Dr. THEODORE WILLIAMS, Dr. HERMANN WEBER, and Dr. EWART spoke in strong support of the mountain cure; while Dr. POLLOCK and Dr. QUAIN did not hesitate to declare that the cases which do well at Davos and other high altitude sanatoria are precisely the cases which do well in England, and that the element of altitude is practically without influence upon the result. The discussion arose out of a communication from Dr. WILLIAMS, in which he detailed the results of treatment in 141 cases of phthisical patients who had resided at high altitudes. The results were certainly surprising and gratifying. In 41·13 per cent. of cases the restoration to health was complete, in 29·78 per cent. there was great improvement, 11·34 per cent. were more or less improved, while only 17·02 deteriorated, including 13·47 per cent. of deaths. Among cases in the first stage there was improvement in 91 per cent., arrest of the disease in 63 per cent., with deterioration in only 7·5 per cent. In the second and third stage cases there was improvement in 46 per cent., arrest in 10 per cent., and deterioration in 46 per cent. Single cavity cases gave, as might have been expected, better results than cavity cases with the opposite lung involved; and left cavities showed less tendency to change, for better or worse, than those in the

right lung. Among the general conclusions arrived at by Dr. WILLIAMS are the following: That to benefit by residence at high altitudes there must be freedom from pyrexia and sufficient lung surface to carry on the process of respiration adequately in a rarefied atmosphere; that enlargement of the chest, hypertrophy of the healthy lung tissue, and development of pulmonary emphysema around the tubercular deposits usually ensued upon residence in the mountains; that hæmorrhagic cases do well in these regions, hæmoptysis being rare; that a residence of from six months to two years is requisite to secure the maximum of benefit. Apart from phthisis proper, Dr. WILLIAMS has found the high altitudes useful in cases of imperfect thoracic and pulmonary development, in chronic pneumonia without bronchiectasis, in chronic pleurisy, in pure spasmodic asthma, and in anæmia. He deprecates their employment in cases of phthisis with more than one cavity, in cases where the breathing surface is much reduced, in catarrhal phthisis, in erethitic phthisis, in emphysema, in chronic bronchitis, in diseases of heart, brain, and spinal cord, and in advanced age.

Dr. WEBER'S figures were analogous to those of Dr. WILLIAMS, but his advocacy of high altitudes was qualified by the important remark that he did not attach much value to elevation, except in so far as it made open-air exercise easy. He believed that the results obtained at Falkenstein in the Taunus Mountains (elevation under 2000 feet) were as good as, or better than, those reported from the high Alps.

There are two aspects of this important therapeutic problem upon which clear and authoritative teaching is much to be desired: First, are there any cases which do well exclusively at high altitudes, and in which other methods of climatic treatment would be unavailing? And, secondly, if there be such cases, what is the essential element in the cure? Is it elevation with the proportional atmospheric rarefaction, or is it some other factor in the climates at high levels? Now, whatever be doubtful, it can hardly be denied that rarefied air promotes respiratory activity, and that the proportion of cases in which decided expansion of the thorax takes place is greater at the mountain sanatoria than at those of less elevation. It seems a fair deduction from this unquestionable fact that cases of phthisis with much flattening and constriction of the chest suggest themselves as one class in which high altitudes may fulfil a definite therapeutic indication. Again, if we can trust statistics, cases of limited and stationary lesion in the first stage would seem to have a better prospect of speedy and complete recovery at high altitudes than elsewhere. Such cases, no doubt, sometimes completely recover without change of climate, but this happy result is surely somewhat exceptional in this country, whereas it seems a comparatively common occurrence at Davos, Colorado, and the Andes. Finally, we think there is very strong evidence of the peculiar value of high altitudes in cases where phthisis has supervened upon chronic pleurisy or pneumonia.

Facts such as those educed above are independent of theoretical explanation, but we cannot help speculating upon the secret of the beneficial influence of high altitudes. The favourite theory has been that the rarefaction of the air stimulates respiratory activity, and that in this circumstance we have a valid explanation of all the facts. Dr. CREIGHTON, following some experiments of PAUL BERT, leans to the view that high altitudes give a stimulus to the greater production of hæmoglobin, and hence not only promote the formation of healthy blood, but help to develop the vascularity of the pulmonary tissue. Other authorities, rejecting any special theory, hold that the chief, if not the only, advantage to be found in residence in the mountains is the high average of fine, dry, sunny weather, admitting of ample fresh-air exercise and promoting appetite, digestion, and hopefulness. We note that at the recent discussion no emphasis was placed upon the theory, so popular a few years ago, that the "aseptic air" of high elevations was the true secret of their beneficial influence. This reticence is significant taken in connexion with the obviously waning faith in the utility of antiseptics in phthisis which at present prevails. It seems as if we could not safely go farther than the assertion that pure air is essential in battling with the disease, but that the value of all special medicaments administered with a view to the destruction of the bacilli must still be regarded as a *lis sub judice*.

The recent discussion will have served a useful purpose if it succeeds in impressing upon the minds of the profession that the choice of cases for the mountain sanatoria must be most anxiously regulated, and that this method of treatment is no specific to be recklessly or indiscriminately applied. We would deprecate, on the other hand, the hasty rejection of the great mass of evidence which constantly reaches us from the Alps, the Rocky Mountains, and the Andes, to show that the mountain treatment is a *bonâ-fide* addition to the resources of therapeutics.

THE evidence necessary to establish a relation between a malady of the cow and scarlatina in man must obviously accumulate if Mr. POWER'S deductions from the Hendon outbreak be well founded. It will be recollected that his report proved a coincidence between the appearance of disease in cows and of scarlatina among milk drinkers so striking that it was in the highest degree improbable that the two occurrences were not related to each other; on the other hand, it was argued that the cow ailment was a common malady in the bovine animal, which had no connexion with the production of the human disease, and further proof has been anxiously awaited by those who have been unwilling to accept as final the lessons which the Hendon outbreak indicated.

The scarlatinal outbreak at Garnethill, investigated by Dr. RUSSELL of Glasgow, again raises the question, and the evidence which he adduces in favour of Mr. POWER'S view deserves more than casual notice. Dr. RUSSELL proved with sufficient certainty not only that the milk of a particular dairy was concerned in the causation of a large number of cases of scarlatina, but that a particular section of the milk supply—that received from certain cows—was responsible for the prevalence of this disease. While he was able to exclude the possibility that the milk had become infected by human beings employed in milking or in milk distribution, his attention was specially directed to some cows presenting appearances similar to those described as occurring in the Hendon cows, and he states that water-colour drawings of the teats of the Hendon cows depicted a

condition closely resembling if not identical with that of the teats of the Glasgow cows referred to.

While not denying the interest which attaches to the discovery of animals with sore teats and with loss of hair among those supplying milk, we are not disposed to regard as important the resemblance between the cow ulcers and those of which drawings were exhibited, for drawings at the best can only give rough indications of appearances, and until this class of cow disease has been more fully studied, it is possible that there would be difficulty in distinguishing between the ulceration attending one and another malady. But Dr. RUSSELL's observation was not limited to this. A calf was fed on the milk of these animals, and was almost at once seized with a highly febrile illness which nearly killed it, but from which it is now recovering with loss of hair and copious casting of the skin. It is greatly to be regretted that Dr. RUSSELL and his colleagues were prevented by legal restrictions from conducting inoculation experiments for the purpose of further testing the communicability of this disease from one cow to another, but the circumstances which he has put on record raise a strong suspicion that he has had under his observation a disease precisely similar to that described by Mr. POWER and Dr. KLEIN in the Hendon cows. Dr. CARMICHAEL is now engaged upon the cultivation of micro-organisms obtained from the animals, and it may be hoped that he will be able, before concluding his experiments, to perform the necessary inoculation of other cows. It is lamentable that obstacles should already have stood in the way of a full investigation needed in the interests of the public health.

ON Thursday, May 18th, in the House of Commons, Dr. FARQUHARSON asked the Vice-President of the Council of Education "whether he would lay upon the table a copy of the Petition for Reform in the Constitution of the Royal College of Surgeons of England, signed by 6000 Members of the College, and addressed to the Lord President of the Privy Council, together with a copy of the statement and contentions in support thereof made to the Lord President by the deputation of Members which waited upon him on November 11th, 1887; and whether he would state whether that statement was referred to the President and Council of the College for reply; whether any reply was received; and on what grounds the Privy Council had, in the absence of any reply, and without further communication with the Members of the College or their representatives, decided to negative their request for such reform." This was the reasonable and natural question put by one of our too few professional representatives in the present House, and it elicited the following reply from Sir W. HART DYKE: "There will be no objection to lay on the table a copy of the petition and statement of the Members of the Royal College of Surgeons. The statement was referred to the College, and the receipt acknowledged. The Privy Council subsequently decided to strike out the contentious clauses from the Draft Charter, and the College have agreed to accept the Supplemental Charter on those terms."

It would appear from this answer that the Council of the College of Surgeons have treated an urgent appeal from 6000 members of their own body with less courtesy than would be granted to the addresser of a single complaint against any Managing Board of Directors. The receipt of the appeal is acknowledged; apparently the Council have presented the same *non possumus* reply to the Privy Council that they exhibited to the Fellows and Members at their recent annual meetings. "The Privy Council subsequently to this acknowledgment decided to strike out the contentious clauses from the Draft Charter, and the Council of the College has agreed to accept the Supplemental Charter on those terms."

We feel convinced that this novel design in patchwork on the part of the Privy Council will not commend itself as satisfactory to the Members of the College of Surgeons, whose just claims are in danger of being so quietly and absolutely ignored; and it opens up an inquiry in our own ranks as to who may be the advisers of the Privy Council on these points, there being no member of our profession as yet amongst that august body.

The Council of the College, however, having secured a safe footing on their financial platform, have agreed to accept the Supplemental Charter on these terms, and have acted up to the spirit of the proverb that "*half a loaf is better than no bread*" The Council persists in saying to the Members of the College, "I have no need of you," and thus promotes schism in the body. Ere long the members may not be so numerous as now, or the aspirants for professional licences so desirous of accepting the present ignominious terms; the present number of Fellows is already a diminishing quantity, and the general spirit of the times points towards a far more liberal interpretation of the rights and privileges of a Collegiate Membership. Members of the College are now but mere licentiates, and for the present must remain so; their enfranchisement, however, cannot be long deferred. The College, in the full meaning of the word, should become a truly representative corporation, receiving the Members with the natural grace of attraction, and focusing within its walls the concentrated and combined light of the expressed wishes of our many-sided profession.

Annotations.

"Ne quid nimis."

THE MEDICINE STAMP DUTY.

THE Chancellor of the Exchequer, replying on the 13th inst. to Dr. Farquharson, declared that he was not aware that there had been any expression on the part of chemists and druggists of widespread dissatisfaction at the manner in which the medicine stamp tax has been lately enforced. "In fact," he added, "the leading trade journals have on more than one occasion expressed an opinion that those duties are administered in a considerate manner"; and, what was most significant of all, he stated that the abandonment of the duty charged upon drugs which are neither patent nor secret compounds would destroy the greater part of the produce of the duties. By this reply we are, it would seem, to understand that Mr. Goschen is not only content to let the matter rest, but that he does not even think it necessary to apologise for the mischiefs of the duty in their most aggravated form. We have pointed out too recently how thoroughly bad in its direct and indirect consequences is this in-

defensible impost to enlarge upon that topic now; nor, indeed, is the moment opportune. But we cannot allow Mr. Goschen's reply to pass without a protest. We speak in the name of no class or section, but in the name of the general public, when we say that it is wretched finance to levy upon the producer a tax which the consumer must eventually repay three times over; and it is worse morality to issue a stamp which every unscrupulous quack can use as a blind to mislead unwary customers by the fiction of a Government certificate. But now it appears, from Mr. Goschen's admission, that although quack patentees undoubtedly derive the largest benefit from the arrangement, they do not contribute the largest quota to the revenue from this source. On the contrary, we learn that the greater part of the produce of the tax would be destroyed by exempting from its operation compounds which are neither secret nor patent, but medicines of recognised formulæ and known constituents. There is only one possible argument that can be urged in support of taxation levied upon such commodities, and that is that they will yield £80,000 a year to the exchequer. That is not a strong argument even from a Chancellor's point of view, and when a resolute agitation is once set on foot it will doubtless be cast to the winds. But it is plainly idle to hope for any result apart from the pressure of public opinion. We would suggest to some member of Parliament who has the interests of a sound economy at heart that a highly useful return might be obtained if details were required of the produce of this tax in recent years—say ten years past,—showing the amount collected, the classes of goods in respect of which it has been paid, the localities in which it has been raised, and the total amounts received by the Imperial exchequer and paid by the consumer of the compounds respectively. It would then appear that there are holes and corners of British finance that compare but badly with Turkish administration.

THE MONEY DIFFICULTIES IN THE LONDON HOSPITALS.

IT is curious to notice the various explanations suggested by newspaper critics of the undoubted fact of stinted hospital funds. One critic, "W.," in *The Times*, attributes the withholding of funds to the constant efforts of the medical staff to multiply patients for the benefit of medical education. In this way, it is argued, thrift is destroyed and the fair interests of private practitioners and provident dispensaries unduly sacrificed. This writer complains the more of this tendency as it ignores the great provisions which have been made since 1867 for the treatment of the poor and of infectious cases in the metropolitan asylums, Poor-law dispensaries, &c. If all such classes were excluded, and the hospitals instigated an adequate and systematic investigation into the fitness of cases, they would greatly reduce their expenses. "W." advocates the charge of 1s. each in the selection of out-door cases as a test of fitness. We do not altogether approve such a test. It would turn the hospitals into wholesale dispensaries, competing with humble practitioners, and encouraging those not poor to resort to hospitals with the shabbiest motives. It is not for such persons that hospitals exist. Fitness for hospital treatment is not to be so easily determined, and is a question of some nicety, depending on various conditions in the case of a patient. A writer in the *Star* (Mr. Edward W. Sinclair Cox) attributes the impecuniosity of hospitals to public distrust of the way in which the money is spent. Scandals are certainly of rare occurrence in the management of hospitals supported by voluntary subscription—most creditably rare. Let no one sleep comfortably on this excuse for withholding a £5 note from hospitals. The great unendowed hospitals of London are for the most part administered with economy and care. Thousands of cases have to be refused admission that a larger Christianity would find a bed for. By all means let rich men criticise the administration and expenditure of hospitals. But let them give first and criticise afterwards.

CLARKE'S COLUMN.

THIS column of nerve cells possesses more interest now since Gaskell promulgated his views in regard to its relationship to the sympathetic system. Gaskell proved the outflow of the fine medullated fibres of the visceral and vascular system to exactly agree in position with the cells of Clarke's column in the spinal cord. The older view of Flechsig is that they are connected with the innervation of the trunk muscles. Lockhart Clarke showed that these cells are connected with the fibres of the cerebellar tract. Dr. F. Mott has attempted to throw further light on the subject by comparing the spinal cord of a man, a monkey, and a dog. In man the column is a cylindrical body situated at the neck of the posterior horn; its shape is ovoid, with the long axis antero-posterior. It was found well marked in all the sections from the eighth dorsal to the second lumbar inclusive. Above this up to the sixth dorsal many transverse sections showed only a fine nerve plexus. Vertical sections showed scattered groups of cells from the sixth up to the first dorsal. No cells could be seen in the cervical enlargement; but in the first to the third cervical a few scattered cells could be seen, not forming a definite column, as in the lower dorsal region. Cells are not found below the second lumbar, with the exception of a few in the upper sacral, corresponding to Stilling's nucleus. In the monkey the column forms a cylindrical body on either side of the central canal, separated from the posterior column by a considerable interval, across which fibres pass to it. In the dog the situation of the column corresponds to that in the monkey, but it is much better marked in the upper cervical and dorsal regions. A diagram in the *Journal of Anatomy and Physiology* (vol. xxii.) shows very plainly the situation and size of the column in the cords of these three animals. The difference in distribution of the cells may be related, Dr. Mott thinks, to the difference in posture.

TECHNICAL EDUCATION.

WE have received and perused with lively satisfaction a budget of leaflets supplied by the National Association for the promotion of Technical Education, and we heartily congratulate the Society on the useful literature which it is producing. About the importance of technical education—about its supreme importance, indeed—in an industrial community like our own there can be but one opinion, and the sooner that opinion comes to be universally entertained the better. In disseminating it by means of striking and pithy tracts the Association is doing a work of incalculable value, and one in which we heartily wish them speedy and complete success. So far we speak only as citizens of a great industrial State, and both our sentiment and its grounds will be very generally shared by our neighbours. But over and above this general sympathy with a good and important movement, we feel a very special interest in the success of the present agitation for reasons which are peculiarly our own. In so far as technical education means the training of nerve and muscle, the cultivation of sense organ and of hand, it will supply what is not only an economic, but also an hygienic desideratum. Our present systems of education make scarcely any provision at all for the cultivation of that important region of a man which may be broadly described as the seat of his instinctive intelligence. His rational faculties are elaborately educated by the purely mental training which is commonly called education; his purely physical capabilities are developed by gymnastics;

but, save in the most casual and haphazard way, there is practically nothing done with the object of improving those faculties which lie upon the borderland of instinct and reason. Take, for example, the exquisite adjustment and coördination which enables a cricketer to catch a passing ball or a violinist to elicit from his instrument a succession of harmonics. In gifted individuals such faculties, developed by special training, become phenomenal, and then all the world can recognise the child of genius. But in the curriculum of an ordinary education such training finds no place, or at least no sufficiently important place. Tact, or whatever else the subtle interaction of correlated powers may best be called, is the universal condition of all superlative excellence, from the swift discernment which sparkles in brilliant repartee to the sure craftsmanship of a first-rate workman's hand. No system can manufacture genius, but much might be done by well-directed training to raise the average of what we have called instinctive intelligence, and on this head we cordially endorse Professor Huxley's observations in the following passage:—

"Those which strike me as of the greatest importance are two, and the first of them is the teaching of drawing. In my judgment, there is no mode of exercising the faculty of observation and the faculty of accurate reproduction of that which is observed, no discipline which so readily tests error in these matters, as drawing properly taught. And by that I do not mean artistic drawing; I mean figuring natural objects, making plans and sections, approaching geometrical rather than artistic drawing. I do not wish to exaggerate, but I declare to you that, in my judgment, the child who has been taught to make an accurate elevation, plan, and section of a pint pot has had an admirable training in accuracy of eye and hand. I am not talking about artistic education. That is not the question. Accuracy is the foundation of everything else, and instruction in artistic drawing is something which may be put off till a later stage. Nothing has struck me more in the course of my life than the loss which persons who are pursuing scientific knowledge of any kind sustain from the difficulties which arise because they never have been taught elementary drawing; and I am glad to say that in Eton, a school of whose governing body I have the honour of being a member, we some years ago made drawing imperative on the whole school."

EFFECTS OF ACUTE AND CHRONIC COCAINE POISONING.

DR. V. ZANCHEVSKI, of St. Petersburg, has published some observations on the pathological changes found in the bodies of animals poisoned by cocaine. The experiments were made in two series. In the first series the animals (dogs) were given hypodermically a single lethal dose of cocaine—viz., 3 centigrammes per kilogramme of the weight. In the second series of dogs chronic poisoning was induced by the subcutaneous injection of a much smaller quantity—about a fifth part of the lethal dose was given every day for six days. A day was then missed, and during the next six days an increased dose given. Every seventh day was missed, and the dose gradually increased. Thus, dog No. 6, weighing 5650 grammes, was experimented on for seventy-three days. During each of the first six days 3 centig. were given; during the next six, 4 centig. For ten days 5 centig. were given, for thirteen days 6 centig., for eleven days 7 centig., and for the last eleven days 8 centig. The total quantity given was 3·35 grammes. One day in the week was always missed. At the beginning the immediate effect of the cocaine was seen in increased frequency of the cardiac beats and of the respiration, which, however, did not last more than a quarter of an hour. Afterwards great weakness of the legs came on, the animal remaining in a sitting posture and swaying its head to and fro. The pupils were dilated and sensation intact. In three hours the normal condition returned. When larger doses were given the disturbance was greater, the animal commencing to try to run about and the subsequent weakness lasting for a longer period. The general results obtained by observation of the animals during life and by post-mortem examination of the bodies showed that in acute poisoning the mode of death was asphyxia. In chronic cases without asphyxia there was a marked hyperæmic condition of the central nervous system, which presented a contrast to the state of the rest of the organs, which were anæmic. Albuminoid degeneration was especially marked in the ganglionic cells of the spinal cord and the nerve cells of the heart ganglia; it was present also, but in a less marked degree, in the muscular fibres of the heart, in the ganglionic cells of the medulla oblongata, and in the hepatic cells. In these last there was found an accumulation of glycogen. In chronic poisoning the degenerative processes were found to have advanced further in the cells of the spinal cord and medulla, minute cavities, atrophy, and hyaline degeneration being noted. In the heart there was fatty degeneration of the muscular tissue; in its nerve ganglia there were fatty degeneration, minute cavities, and simple atrophy; and in the liver atrophy of the hepatic cells was present. The vascular system was most affected in the spinal cord, there being cellular proliferation and hyaline degeneration of the coats. In the heart and liver an atrophic condition of the tissues was found, also a swelling of the endothelium of the capillaries of the cardiac ganglia.

HOSPITAL SUNDAY WEEK.

IT has been decided to vary the form of the Hospital Sunday Week preparations, as compared with those of last year. Then, it will be remembered, a number of meetings were held in different parts of the metropolis in the two weeks preceding Hospital Sunday. It is thought well not to repeat this every year. There is only one great meeting to be held this year, and that will be in the Mansion House on June 8th, the Friday preceding the Hospital Sunday. Several speakers of eminence have been asked to assist at this meeting, among whom may be mentioned H.R.H. Prince Albert Victor, the Prime Minister, the Archbishop of Canterbury, and the Right Hon. H. H. Fowler. A Council meeting is summoned for the 29th inst. to fill the vacancies in the Committee of Distribution caused by the death of the late Mr. Lionel Cohen, M.P., and the retirement of General Sir E. C. Hodge, G.C.B., owing to failing health. The leading organs of the press have in a general way expressed their willingness to insert communications on the subject of hospitals and hospital support before the collection, and some interesting communications from leading statesmen and others may be expected. We need not say that our interest in Hospital Sunday continues unabated. We hope to issue a full account of the Mansion House meeting, and to publish other material bearing on this great subject.

ETIOLOGY OF AORTIC ANEURYSM.

DR. KARL MALMSTEN of Stockholm has published notes of 101 cases of aortic aneurysm occurring in his own practice or in that of other Swedish physicians, with the view of elucidating to some extent the causes of this affection. He remarks, however, that it is impossible to say how many persons really die of aortic aneurysm, for the condition is very frequently not diagnosed, and the death is returned as due to "cardiac disease," "hæmorrhage," or other ill-defined causes. As to the seat or seats of the aneurysms in the cases collected, information could only be obtained in ninety-two instances. Of these eighty-three were single, the arch being affected in fifty-seven, the descending aorta in seventeen,

the abdominal aorta in four, and the arch and the descending aorta together in five. In eight cases there were two distinct aneurysms, and in one case three, two of them on different parts of the arch and one on the right coronary artery. These statistics fully bear out the observations of other physicians as to the greater liability to aneurysm of the portions of the aorta nearest the heart. Dr. Malmsten also confirms the remarks of Stokes as to the want of connexion between aneurysm and cardiac hypertrophy. In about 80 per cent. of the cases the existence of syphilis was definitely made out. There were but five cases in which gout or rheumatism existed, and in five only could alcoholism be assigned as a cause. Besides, it is remarked that in the Swedish military hospitals, though alcoholism is yearly decreasing, the number of cases of aortic aneurysm show an upward tendency. The cases of aortitis chronica petrificans, or senile degenerative change, were few in number, and there was only one instance of a traumatic nature. Several beautifully executed engravings illustrating syphilitic lesions, classed by the author as aortitis sclero-gummosa, are appended to the work.

EFFECTS OF MENTAL OVERWORK.

SOME interesting, though not novel, observations on the symptoms of mental fatigue were discussed at a recent meeting of the Anthropological Society. The result of these investigations goes to prove that weariness of mind, the result of work, like other forms of exhaustion, is recognisable under the two different though related aspects of irritability and of incapacity. Further careful inquiry into the same subject would probably show that here as elsewhere the former of these conditions is introductory to the latter, and is the natural sequel of that stage of apparently successful overaction which is seen when an organ still fully capable is unduly stimulated. The observations referred to were culled from a series of reports by school teachers, and included details of their own sensations, as well as of the children under their care. The signs of mental irritability were apparent in sleeplessness and nervous laughter; of fatigue, in sleepiness and incapacity for task work. Lolling, yawning, and a languid manner told that the will was flagging. Headache suggested overstrain in study combined with defective ventilation, and perhaps a too sparing diet; while some curious facts bearing on the causation of colour-blindness and somnambulism were also noted. Thus, in one case the blue-colour perception was for a time obliterated, and the sufferer from this defect found herself painting ivy leaves a bright orange; while in another a student, having retired to rest on the eve of an examination, awoke at his desk to find that he had been busily engaged in drawing humorous cartoons relating to a former conversation. Here we have an instance of cerebral irritation due to overwork, which suggests a somewhat close connexion between dreaming and somnambulism, and affords a clue to the physiology of the latter condition. Overwork, both mental and bodily, is at once the most general and the least regarded form of illness to which we are liable in the present age. Do what we may, it is next to impossible to escape from it; but there is, at all events, a certain satisfaction in being able to recognise its features. We must not forget, however, that it is also to a considerable extent a preventable evil, and it is certainly a matter for satisfaction that this fact is not ignored by the reforming party in the Legislature. Its treatment in individual cases requires chiefly that due attention be paid to the two great essentials of timely rest and wholesome diet. Work, however irksome, may, it is generally allowed, be undertaken on a very liberal scale, if only it is not too continuous, but is broken by timely and adequate intervals of rest. The value of a plain and liberal dietary is hardly less, and we may take it as a maxim for the times that, so long as appetite and sleep are unimpaired, there is no dangerous degree of overwork, and, conversely, that a failure in either of these respects should be regarded as a warning signal, to which attention should be paid by relieving the strain of exertion.

VACCINATION AND SMALL-POX IN SCOTLAND.

THE Registrar-General for Scotland has just issued his twenty-third annual Report on Vaccination in Scotland, which deals with the vaccination statistics of the children born in 1886. In Scotland vaccination is not obligatory until the age of six months, whereas in England it is compulsory at three months. The report before us shows that, after deducting from the births in 1886 the cases in which the children died before they reached the vaccination age, 95·0 per cent. were registered as successfully vaccinated; 2·0 per cent. were cases in which the vaccination was postponed; 0·4 per cent. were returned as insusceptible from different causes; and 2·6 per cent. had removed from the district before vaccination, or were otherwise unaccounted for. It is worthy of note that the proportion of successful vaccinations was lower in 1886 than in any previous year since the Scottish Vaccination Act came into operation in 1864, and that the proportion has steadily declined year by year from 96·4 per cent. in 1876, to 95·0 in 1886. On the other hand, there has been a steady increase in recent years both in the proportion of postponed vaccinations and in that of the cases unaccounted for. Notwithstanding this falling off, however, the proportion of cases unaccounted for is still considerably lower in Scotland than in England and Wales. Scotland has, moreover, been exceptionally free from small-pox prevalence in recent years, and the deaths from this disease did not average more than 13 per annum during the ten years 1878-87; and during last year only 4 fatal cases of small-pox were registered in the eight largest Scotch towns, of which 2 occurred in Aberdeen and 2 in Perth.

NERVE TRANSPLANTATION.

OF late we have often witnessed many successful cases of nerve suture, where, even after the lapse of many years, the peripheral extremity of a severed nerve trunk has been proved to be still capable of exercising its function, with the restoration of motor power and of sensibility to the parts that it supplied. It is, however, a new and most encouraging departure that has been successfully carried out by Dr. Gersung of Vienna on the illustrious physiologist, Professor von Fleischl. Sixteen years ago Professor von Fleischl sustained a post-mortem wound in the right hand, which resulted in the loss of the terminal phalanx of the thumb. The stump became painful, and amputation higher up was succeeded by the formation of painful neuromata on the divided nerve. In spite of repeated excisions, the condition continued to recur, until two months ago Dr. Gersung decided to transplant a portion of the sciatic nerve from the rabbit and to suture its trunk to the trunk of the median nerve, and its popliteal divisions to the distal ends of the branches supplying the thumb and forefinger. The portion thus transplanted and sutured under strict antiseptic precautions measured six centimetres in length. The result so far, must be most gratifying to the subject of the operation, both as a patient and a physiologist; for he is regaining sensation in the fingers, which affords sufficient evidence that the rabbit's nerve has not only become organically united with the human, but that it is performing its function normally. Moreover—and this is a very interesting feature of the case,—it has not shown the tendency to "neuromatous" degeneration which marked

the original nerve. The case demonstrates the well-accepted fact that the nerves themselves, or rather their axis cylinders, are remarkably prone to regeneration, and that physiologically they are simple conductors of stimuli. It suggests, further, the possibility of more satisfactorily dealing with other morbid "habits" of nerves—such, for instance, as facial tic,—which in many cases have resisted nerve resection and nerve stretching. Why this replacement of a portion of a nerve which has a morbid tendency by a portion from a healthy nerve should annul this tendency is quite unexplained. It appears to have done so in this case, and therefore it may be inferred that the method may succeed in others which have hitherto resisted all endeavours at cure by simpler means. Lastly, the case is interesting as proving the practical identity that exists between nerves of different species of animals—a fact which anatomy has long suggested, but which has only now received physiological proof.

THE SIGHTSEER'S HEADACHE.

OF the lighter penalties which pleasure entails, none probably is more widely known and felt or more persistently endured than the sightseer's headache. It is nature's tax levied on the comfort of that great body of busy idlers to which we all at some time or other belong. It is endemic among the frequenters of museums, picture galleries, and exhibitions, varying somewhat perhaps in different cases in its precise causation, but associated always in a manner significant of its origin with the habits of the observant loiterer. The circumstances in which it arises afford the most reliable clue to its true character. Among these, temperature, atmosphere, and strain both of body and mind, though commonly combined, play their several parts in varying degrees of activity. The influence of a warm and close atmosphere as a cause of headache is too well known to require more than a passing notice. The torpid congestion of tissue which it tends to induce, and from which the brain is not exempted, is familiar to most of us as a morbid process too often illustrated in our painful experience. It contributes its proportion, doubtless, towards that total of malaise which affects the visitor to a crowded picture-gallery or assembly-room, and culminates in the localised ache which renders the slightest mental effort a weariness. The very general prevalence of this variety of headache, however, and its independence in many instances of any vitiation of atmosphere, teach us to look for its explanation in other causes. The effort of mind implied in long-continued observation, even though this does not involve the strain of study, has probably an appreciable, though a secondary, influence. Fatigue certainly has an important share in its production; but it is with most persons rather fatigue of muscle than of brain. The maintenance of the upright posture during several hours of languid locomotion, the varied and frequent movements of the head commonly in an upward direction, and the similar and equal restlessness of eyes whose focus of vision shifts at every turn as a new object presents itself, form a combined series of forces more powerful in this respect than the sunlight and frequent changes of mental interest and attention by which they are accompanied. The muscular strain implied in these movements is necessarily very considerable. It affects more or less every member of the body, but the distant localisation of the resulting ache has probably much to do with the unusual activity of the cervical extensor and rotator muscles and of the muscles which move the eyeball. Whatever the minor influences at work, therefore, there can be little doubt that mere fatigue is primarily accountable for this most general form of headache, and that rest and nourishment are most reliable antidotes. The utility of stimulants for this purpose is necessarily temporary and deceptive. One improvement on existing arrangements ought to be of real assistance to the suffering sightseer if more generally introduced by responsible authorities. The comparative scarcity of seats in many places of amusement has often been noticed. It would be much to the public advantage if this want were supplied. For the attendants at exhibition stalls a chair for occasional use is an absolute necessity.

EXPERIMENTAL CIRRHOSIS.

MM. STRAUS AND BLOCQ (cited in *Fortsch. d. Med.*, No. 8) have administered to rabbits, by means of the œsophageal tube, alcohol in doses of from eight to ten grammes, increased to fifteen grammes, with three times the amount of water. The alcohol consisted of a mixture of ethylic and amylic alcohol. It was found that the administration had to be continued for some months before marked changes in the stomach and liver could be appreciated. In cases where the toxic effects were more rapid acute gastritis occurred; but where the animals survived these early effects the result was a thickening of the mucosa, especially in the cardiac region. The liver did not become notably affected until after seven months, although very slight changes were perceptible at the third month. The changes corresponded to those of cirrhosis in the human subject, consisting in the accumulation of embryonic cells in the portal zones, without, however, any special relation to the bile ducts, or the branches of the portal vein and hepatic artery. The change was rather a diffuse lesion of Glisson's capsule. As a rule, the liver cells were strongly marked off from the new tissue, but in places the latter had invaded the lobules and isolated liver cells, suggesting possibility of a primary degeneration of the parenchyma under the action of the alcohol. Even after a year's duration the new tissue showed no signs of fibrous transformation. The distribution of the infiltration suggested that the cirrhosis is at first monolobular, and that the multilobular character held by Charcot to be distinctive of alcoholic cirrhosis is a subsequent development of the process.

PHARMACEUTICAL REFORM IN GERMANY.

REVELATIONS in a criminal trial at Strasburg last week disclose the prevalence of great abuses in the dispensing of drugs in at least one part of the Teutonic empire. In the late autumn of last year Dr. Flocken, a general practitioner, was in attendance on two patients suffering from rheumatoid arthritis, and in both cases, by some inexplicable mistake, he prescribed the extract instead of the tincture of colchicum. The unfortunate sufferers were thus made to take in each dose of this powerful depressant about ten times the maximum allowance, and they soon died of colchicum-poisoning. In both cases the prescription, in the absence of the apothecary, Greiner, was made up by his assistant, Wolf, and, without apparent misgiving, delivered to the messenger. Worse, however, is yet to follow. Dr. Flocken, on learning the fatal consequences of his ignorance or negligence, contrived to get back the prescriptions, destroyed them and the remainder of the medicines, of which he also got possession, removed the labels from the bottles, and, in concert with Greiner, suppressed the prescription-book. For this a new book was substituted, and in it were entered the old prescriptions, all rewritten, including the two which prescribed the extract instead of the tincture of colchicum. After a two days' trial, Dr. Flocken, Greinen, and his assistant, Wolf, were all found guilty; the second assistant, Anders, being acquitted. Dr. Flocken was sentenced to six months' imprisonment, in which the month he had spent in prison before his trial was counted; Wolf, as the dispenser of the two fatal draughts, to three months; and Greiner, the master

apothecary, who aided and abetted the falsifying of the prescription-book, to two weeks. Considering the gravity of the case, the sentences of the three are by no means too exemplary. During the trial the evidence of the pharmaceutical experts, including that of the Government referee in the compounding and dispensing of drugs (*Medicinal-referent*), revealed many abuses in the practice of German apothecaries—abuses which the fate of Dr. Flocken and his two accomplices will, it is hoped, contribute to remove by stringent and immediate reforms.

EFFECTS OF THE REPEAL OF THE CONTAGIOUS DISEASES ACTS.

DR. DICK, Director-General of the Medical Department of the Navy, recently gave evidence before the Select Committee of the House of Commons on the Navy Estimates. From this it appears that of the number of men in the hospitals at home, one-third have suffered from venereal diseases since the abolition of the Contagious Diseases Acts, while abroad the proportion was much smaller. The following figures show very strikingly the effects of repealing these Acts. They were suspended in 1883—that is to say, the compulsory examinations ceased, and the hospitals became voluntary; while in 1886 they were repealed altogether. In 1870 the number of cases in hospital was 642; in 1871, 619; from 1872 to 1879 it varied from 738 to 887; in 1880 it was 994; in 1881, 1124; in 1882, 1169; in 1885, 1943. In 1884 (after the suspension), 2153; in 1885, 2246; in 1886, 2197, and in 1887 it had risen to 2686. The cost of medical treatment for the men was about £5 11*s.* per head, and for feeding them £18 9*s.* The cost of medical treatment was thus as high as a third of their maintenance; but it included also provisions, stores, and other things. It is perfectly clear that venereal diseases in the navy are very costly. That the repeal of the Acts has been attended with any benefit to the districts where they were formerly in force has been disproved by the evidence of those who have waited as deputations from Portsmouth, Chatham, Woolwich, and other districts upon the President of the Local Government Board and other heads of departments. All the evils complained of prior to the passing of the Acts have returned in full force without any counteracting advantages, and, as we have seen, with serious detriment to the efficiency of the navy and increased expenditure.

OPTIC ATROPHY IN TABES DORSALIS.

M. GALEZOWSKI has collated 1029 cases of atrophy of the optic nerve, of which 870 occurred in males and 159 in females. Of this number 717 were cases of locomotor ataxy, in which a syphilitic antecedent was noted 496 times. It is concluded that cases of tabetic optic atrophy comprise about two-thirds of all cases of optic nerve atrophy; that two-thirds of the cases of tabetic atrophy of the nerve are remotely related to syphilis; and, finally, that, though generally incurable, optic nerve atrophy in tabes dorsalis may be arrested when it is accompanied by certain peculiar vascular alterations.

REPRIEVE OF MR. BURKE.

WE are glad to find that the Home Secretary has seen his way to advising Her Majesty to reprieve Mr. Burke. In our last issue we drew attention to Mr. Burke's state of mind about the time he is alleged to have fired the fatal shot at his helpless little daughter. Since then we have had evidence laid before us to show that Mr. Burke as recently as last February attempted his own life. Whether driven by an insane impulse to take the life of his child, or whether the wound was inflicted by a wild, meaningless act, does not matter. As we previously urged, Mr. Burke could not, on the evidence adduced, be held accountable for the deed

TRAUMATIC PHTHISIS.

DON F. DE A. NOGUÉS mentions in a Barcelona journal, the *Boletin de Médicina y Farmacia*, a case which he thinks shows that where predisposing causes exist the actual or exciting cause of the commencement of pulmonary phthisis may be traumatic. The patient was a young man who had led a dissipated and criminal life, but did not seem to have suffered from any actual disease or to have any hereditary history of phthisis. In consequence of some crime he was sentenced to receive the exceptionally severe punishment of a hundred and fifty lashes, at the termination of which he was sent into the prison infirmary in a state of unconsciousness. During the next few days he suffered from hæmoptysis, cough, dyspnœa, and restlessness. From this time all the symptoms of phthisis began to appear and made steady progress. The dulness commenced in the supra-spinous regions and gradually travelled downwards to the bases, the whole of the posterior aspect of both lungs presenting ultimately both the percussion and auscultatory signs of phthisis. Here it was somewhat remarkable that, notwithstanding the extensive inroads of the disease, the anterior aspects of the lungs were scarcely affected.

KASHMIR MISSION HOSPITAL.

THE report of the work accomplished in the Kashmir Mission Hospital by the medical officers, Drs. A. and E. Neve, during the year 1887, shows that a large and ever-increasing amount of good surgical work is being accomplished in and around Srinagar, on the banks of the Jhelum. More than 1000 important operations were performed, with only eight deaths, in addition to about 500 minor operations. Eye diseases are very numerous in Kashmir, as is seen by the large proportion of ophthalmic operations. Of these there were 670; 458 patients were subjected to Stellwag's operation for trichiasis, most of them on both eyes. A general fleshy thickening of the conjunctiva, with vascularity of the cornea, is rather common; for this peritomy appears to be the best treatment. There were twenty-five cases of cataract, only three of which were failures. Since adopting in many cases a corneal incision of semilunar shape, sometimes approaching the horizontal meridian, Dr. Neve says no difficulties have been experienced in the removal of the lens, nor has any complication of the vitreous ever occurred. Irrigating by McKeown's method has proved remarkably useful in clearing the pupil. Epithelioma would appear to be much less common than formerly, probably because so many of the tumours which had existed for years have now been excised. Stone is less frequently met with in Kashmir than in many other parts of India; six cases of lithotomy, five of them suprapubic, were performed, and one case of litholapaxy. The calculi were nearly all large. Nerve stretching for leprosy was performed in eighteen cases, all of them being returned as cured.

INFANTILE PULMONARY SYPHILIS.

DR. ARNOLD HILLER (*Fortsch. d. Med.*, No. 8) describes two forms of lung disease in congenital syphilis—viz. (1) white pneumonia and (2) interstitial pneumonia. The first is very rare, and only occurs in the stillborn or in those who survive birth a very short time. The lungs are voluminous and bear the impress of the ribs, and have a whitish or marbled aspect. The alveoli are filled with fattily degenerated epithelium, and the alveolar septa are not thickened. The second variety is met with in all degrees, occasionally so slightly marked and limited to the vicinity of the vessels and bronchi as to be hardly recognised were it not for the coexistence of other evidence of syphilis. In marked cases, the lungs are large, tough, but air-containing. They may be entirely or only in part affected. The interstitial tissue

is greatly increased by new connective tissue or round cells; the capillaries dilated and tortuous; but no endarteritis has been observed. The right side of the heart is often notably hypertrophied. The disease begins in fœtal life, and may attain a considerable extent before it proves fatal; or, being partial and slight, it may not terminate life; but it may extend at a later period. It is suggested that some of the cases of pulmonary induration met with in adult life, and inexplicable on other grounds, are to be referred to such inherited lesions. Hiller had never met with tuberculosis in association with these syphilitic diseases.

SMALL-POX AT SKIPTON.

WHILST small-pox is diminishing elsewhere, the urban and rural sanitary authorities of Skipton have been thrown into a state of alarm by the occurrence of the disease, especially amongst navvies working in the district, and amongst whom there is said to be a good deal of overcrowding. The emergency is the greater because Dr. Wylie, the workhouse medical officer, very properly protests against the workhouse being turned into a small-pox centre, and it is urged that if it be right to protect out-door paupers against the spread of infection by taking the sick away from their houses, the in-door paupers, many of whom are too helpless and infirm to leave the institution, deserve at least an equal amount of consideration. Again and again have the authorities concerned talked about the provision of some isolation hospital, but the matter has been postponed, and now there is a prospect that some place which will not be suited to the general interests of the district for the isolation of infectious fevers will be hurriedly run up, and after all be too late.

HYDROPHOBIA FROM THE BITE OF WOLVES.

DR. J. G. SHISHKIN gives, in the proceedings of the Caucasian Medical Society, an account of the cases of three persons who were badly bitten by a rabid wolf, one of whom only died. There seemed to be no doubt of the character of the animal, as, though it was not examined post mortem, it attacked all the persons together, which an ordinary wolf would not do; besides, one of the victims developed symptoms of rabies and died. The treatment adopted was that of Russian baths, and subsequently, when the patients had been removed to Kharkoff, they were subjected to inoculation on Pasteur's system. They themselves, it should be mentioned, much preferred being treated by village wise women, but the governor of the district intervened and had them all sent off to Kharkoff, where, in addition to Pasteur's inoculations, chloral, morphia, and more especially hypodermic injections of atropine, were employed. The author thinks there is no doubt that the virus of a rabid wolf is of a different nature from that of a rabid dog, and he thinks atropine administered hypodermically is probably the best form of treatment for wolf rabies. Reber, another Russian writer, whom he quotes, has published some non-fatal cases where belladonna was the main remedy employed.

NEW SLAVONIC MEDICAL JOURNAL.

THE *Archives Slaves de Biologie*, a journal which made an attempt to give the medical and scientific inhabitants of Western Europe and America the benefit of some of the best recent articles on biological subjects originally written in Russian and other even more inaccessible languages, is given up. The editor, Dr. M. Mendelsohn, is, however, according to the *Vrach*, about to make another venture which may prove more successful. This is to be a purely medical paper on the plan of the German *Centralblätter*, giving abstracts of the most important articles in Russian, Polish, and other Slavonic medical journals in French. The title is to be *Revue Slave des Sciences Médicales*, and it will appear either once or twice a month.

THE IRISH COLLEGES' COMPLAINT OF MONOPOLIES.

THE Irish Colleges seem much aggrieved that their Fellows are not eligible to many of the higher hospital appointments in England, reserved, as our readers know, for those who hold the Fellowship or Membership of the English Colleges. The College of Surgeons of Ireland have lately complained of the reservation in the case of a Liverpool hospital. We have now before us a statement on the status and educational value of the Fellowship of the King and Queen's College of Physicians in Ireland, and directing attention to the serious disadvantages under which Fellows and Members of the College labour in regard to certain hospital appointments in England, instancing an advertisement in our columns for an Assistant-Physicianship to the City of London Hospital for Diseases of the Chest, requiring candidates to be Fellows or Members of the London College of Physicians. In the abstract, this monopoly is unworthy of the age, and contrary to the spirit of the Medical Acts. But the complaining bodies are not altogether free from blame, and the Colleges which enjoy the monopoly are not altogether without excuse. We have expressed our views on this matter repeatedly. The two English Colleges have held high their Fellowships, whether by an examination or a selection test. Many other bodies professing to give high degrees have been too eager to compete with mere licensing bodies. The remedy does not rest with the English Colleges, but with the governors of hospitals. And the advocates of a more liberal system must be able to show that their Fellowships are as good as English ones. This will be a matter of some difficulty. But it is worth a little trouble. The right method would be to obtain for the Medical Council power to pronounce on the value of the higher examinations respectively. It is deplorable that degree-granting and the conferring of Fellowships can be carried on without the supervision of any body charged with a function to guard the standard for degrees and Fellowships. Until this defect is supplied it is vain to publish the subjects in which men are examined, or the number rejected, or to say vaguely that none are elected but such as have attained an honourable standing in the profession.

GASTRIC ULCER.

IN the course of a clinical paper on the Treatment of Perforation of the Stomach from Gastric Ulcer, Mr. John W. Taylor advances an instructive and suggestive proposition. If after successful laparotomy for peritonitis due to perforation there should arise abdominal pain on the left side, a hectic temperature, cough, and rapid breathing, with delayed manifestation of any adequate cause for these symptoms, the existence of a subdiaphragmatic abscess may be suspected. The case is described of a girl aged sixteen, who was seized with acute and urgent peritonitis due to perforating gastric ulcer. Abdominal section was performed, notwithstanding the serious state of the patient. The source of the perforation could not be found at the time of operation, but the peritoneum was thoroughly cleansed. A drainage tube was left in the pelvis, and the incision closed. The immediate result was very satisfactory; the patient slept and had freedom from pain. Nutrient enemata were given every six hours, nothing being allowed by the mouth for three days. A week after the operation hectic fever appeared, which turned out eventually to be due to

subphrenic abscess. The case and the paper are full of interest, and are published in the *Birmingham Medical Review*, No. 116.

GENERAL FUNCTIONS OF INFECTIVE MICROBES.

A PHLOGOGENIC material is fabricated by certain microbes found in the lungs of oxen suffering from infectious peripneumonia. M. Arloing has cultivated the microbes in solid and fluid media. Injections of the bouillon into the subcutaneous tissues determine considerable inflammatory swelling, and the same result is obtained after filtering off the microbes; hence the inference is drawn that an inflammation-producing matter is manufactured by the micro-organisms. But this matter must not be confounded with the specific poison which causes the greater part of the symptoms of the disease. Its effect is most marked in the OX; goats are less susceptible to it; whilst guinea-pigs, rabbits, and dogs resist its action absolutely.

MICROBIOLOGICAL RESEARCH IN PORTUGAL.

AN official report has been published by Drs. Philomeno da Camara Mello Cabral and Augusto Antonio da Rocha, and presented by them to the governor of the district, on the microbiology of the drinking water of Coimbra, in Portugal, with reference to the existence of the typhoid bacillus in it. All the sources examined were free from this grave impurity with one exception, that of the Feira fountain, in the contents of which the bacillus in question was found in considerable numbers. This is stated to be the first research carried out in the newly established microbiological laboratory of the University of Coimbra. The authors refer to much bacteriological work abroad, and quote especially a leader on the subject of the germ theory of typhoid which appeared in THE LANCET of March 22nd, 1887.

THE LIABILITY OF LANDLORDS.

A CASE was tried in the Stonehouse County Court last week, in which a lady sought to recover £50 damages from a builder under the following circumstances. The complainant took a house as a school, and it is admitted that the water supply was good when she entered it, but shortly afterwards it became offensive, and then the complainant's sister and five pupils contracted enteric fever, the disease being spread in their homes when the school broke up, a fatal result ensuing in one instance. The defendant, it appears, had laid a drain within a few feet of the well, and had so jointed the pipes that leakage and pollution of water resulted; he declaring, however, that any such leakage was impossible, because he had laid the drains himself. This, in the opinion of the judge, constituted a warranty in law, and he gave the plaintiff judgment for the full amount claimed, with solicitor's costs on the higher scale, but he stayed judgment for one month to allow the defendant to appeal if he felt disposed to do so.

CONGENITAL ABSENCE OF BOTH EYES.

DR. MENACHO recently exhibited at the Cataluña Academy and Laboratory of Medical Sciences a little girl of thirteen months, the subject of double anophthalmia. The eyelids, lacrymal apparatus, and orbits appeared to be well formed, but there was no eye on either side, a simple cavity being seen on separating the lids. This cavity was invested by the conjunctiva, which apparently rested on some firm fibrous basis, in which movements could be detected, as if there were rudiments of the ocular muscles. In the thickness of both inferior eyelids a kind of bursa or cyst could be felt, that on the left side being the larger, and having a whitish coat like the sclerotic, which could be seen through the conjunctiva posteriorly, where it was thin and transparent. This became tense during crying, and the child was observed to press it frequently with her hands and then to smile, a phosphene or subjective sensation of light being probably thus produced.

THE BRITISH MEDICAL ASSOCIATION.

THE fifty-sixth annual meeting of the Association will be held this year at Glasgow on Aug. 7th and three following days. The President-elect is Professor W. T. Gairdner, M.D., LL.D. The Address in Medicine will be delivered by Dr. Clifford Allbutt, of Leeds; the Address in Surgery by Sir G. H. B. Macleod, M.D.; and the Address in Physiology by Dr. J. G. M'Kendrick. A special address on "Recent Investigations in Surgery" will be given by Dr. W. Macewen.

SMALL-POX PROSPECTS.

SMALL-POX is diminishing rapidly in Sheffield, and in most of the northern towns that have suffered during the recent epidemic. This is precisely what might have been expected at this season of the year; but small-pox is a disease that tends to recur in places where it has prevailed as soon as the cold weather returns, and hence sanitary authorities, not having yet made the needful provision for at once checking the disease by the isolation of first attacks, should avail themselves of the seasonal breathing-space afforded them, and forthwith supply the needs of their districts in this respect.

FOREIGN UNIVERSITY INTELLIGENCE.

Kieff.—Dr. E. T. Afanasieff has been appointed Extraordinary Professor of Special Pathology and Therapeutics.

Königsberg.—Dr. Wilhelm Ludwig Lichtheim of Berne has been appointed to the Professorship of Medicine.

Palermo.—Professor G. Silvestrini of Parma has been appointed Professor of Medicine.

St. Petersburg (Military Medical Academy).—A sharp contest has just taken place for the coveted post of Extraordinary Professor of Operative Surgery, resulting in the election of Dr. E. Pavloff, who received sixteen votes, being one more than his rival, Dr. W. Ratimoff. Professor Botkin, body physician to the Czar, has received the Alexander Nevski Order.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following eminent foreign medical men are announced:—Dr. J. Heiberg, a well-known Norwegian ophthalmologist, who may be remembered by many Englishmen who visited the German ambulances during the Franco-Prussian war, to which he was sent by the Norwegian Government, serving on the German side as volunteer surgeon.—M. Hannosset, director of the Beaujon and Hôtel Dieu in Paris.—Dr. Mazzarini of Bologna, a distinguished young Italian surgeon, formerly assistant to Professor Loreta, of splenic fever.

FROM the report by Messrs. Crookes, Odling, and Tidy on the composition and quality of daily samples of the water supplied to London during April, it appears that the character of the Thames-derived water supplied to the metropolis continued to correspond very closely with that which prevailed in March. Thus the mean numbers expressing the organic carbon, the oxygen absorbed, and the degree of colour tint for March were ·162, ·044, and 19·3 respectively; the corresponding numbers for April were found to be ·164, ·047, and 15·9 respectively. The Lea-derived water was about identical with that drawn from the Thames, and the whole of the 168 samples examined were clear, bright, and well filtered.

AT Würzburg, from the 20th to the 23rd, under the presidency of Professor von Kölliker, the second Congress of the German Anatomical Society held its meetings. Amongst the papers read and discussed were those of Professor Gegenbaur on "The Offspring from Intercourse of Two Different Species," and of Professor Bardeleben (Jena) on "The Position of the Pelvic Organs in the Female." Other papers and demonstrations were contributed by Professor Martinotti (Turin) and Professor Fürst (Lund), and, among the Germans, by Kölliker (the President), Th. Kölliker, H. Virchow, W. His, Kollmann, von Brunn, Lebouc, Bonnet, Born, and Rabl.

THE Government of Alsace and Loraine has proscribed the Société de Médecine of Strasburg, which, having been founded previously to the annexation, had been permitted up to the present time to continue to exist. The members of this Society are thought to have rendered themselves obnoxious to their German brethren by a want of cordiality in their professional relations with them. In the notice of proscription the Society is informed that the meetings are to cease immediately, the police being authorised to carry out the order. It is, however, intimated that if another meeting is desired in order to wind up the financial affairs, permission may be obtained on application.

A DEPUTATION will wait upon the Rt. Hon. the Secretary of State for War on Tuesday, June 5th, at 1 P.M., relative to the needs of the Volunteer Medical Service. Those volunteer surgeons who are desirous of joining in the deputation should communicate their names at once to the Hon. Secretary of the Association, Surgeon Alfred Lingard. The members of the deputation will meet at the office, 26, King William-street, Strand, at 12 o'clock on the day named.

WILLIAM RAYMOND KYNSEY, Esq., Principal Civil Medical Officer and Inspector-General of Hospitals and Fleets, and Anthony Colling Brownless, M.D., F.R.C.S. Eng., Chancellor of the University of Melbourne, have been appointed Ordinary Members of the Third Class or Companions of the most distinguished Order of St. Michael and St. George.

WE regret to learn that Surgeon-Major J. Prendergast, A.M.S., was drowned lately at Kirkee by the capsizing of a boat while gallantly endeavouring to save the life of Lieut. Falkiner, R.A.

DR. JUSTYN KARLINSKI, a Roumanian military surgeon, states that he has met with no less than three cases in which soldiers in order to escape military service have punctured the membrana tympani.

SIR WILLIAM STOKES will deliver the Cavendish Lecture at the West London Hospital on Friday, June 1st, at 5.30 P.M. The subject of the lecture will be "The Altered Relation of Surgery to Medicine."

THE Emperor of Germany has conferred on Professor Virchow the Red Eagle of the Second Class.

DR. J. ANDERSON, C.I.E., has been elected Physician to the Seamen's Hospital (*Dreadnought*), Greenwich.

AT the twelfth annual meeting of the Metropolitan and National Nursing Association on the 15th inst., it was reported that during the past year the onward progress of the work had been steadily maintained, but the debt due to the bankers had been increased.

THE LANCET
Special Sanitary Commission
ON
SWEATING IN BIRMINGHAM AND THE BLACK COUNTRY.

FROM many quarters complaints have reached us concerning the abuses arising from the sweating system at Birmingham, and we have been requested to institute an inquiry into the subject. Unfortunately but little is known in the town itself as to the extent of the evil. No one could give us even an approximate idea of the number of tailors engaged in the various branches of the trade, though the local branch of the Amalgamated Tailors' Society had instituted an inquiry and discovered sixty-six sweaters, who employed 129 men and 240 women. This is, however, far from a complete record. At Birmingham, perhaps more than elsewhere, removals are of the most frequent occurrence. Some time ago, an inspector was taken to visit the workshops of twelve sweaters, and it was found that nine out of the twelve had changed quarters in the course of a few weeks. Again, the workshops that we ourselves have visited contained a different number of workpeople to what had been noted during the inspection made but a week or two previously by the delegates of the Tailors' Society. All that can be said is that sweating is practised to a large extent, not only in Birmingham, but in several towns of the black country, and that in many cases it is concealed with as much care as would be displayed if the object were to coin false instead of real money. To unravel all these mysteries, to cross-question and inspire sufficient confidence to obtain truthful replies from the sweater's victims, would be the work of many months, and would tax to the utmost the skill, ingenuity, and tact of the investigator. For the moment we must be content with simply relating what we have been able to see in the course of a week devoted exclusively to the subject.

Our first visit was paid to a narrow workshop, which had to be reached by a ladder. The square hole in the floor, where the ladder was fixed, was absolutely unprotected. On a ledge between this hole and the working table, a lad was busily employed. He had about eighteen inches of space to stand upon; and if, in a moment of forgetfulness, he had stepped backwards, he would have fallen into the floor below. There was a good light, the atmosphere was sweet, though the room seemed overcrowded. We cannot understand how this workshop can be under the Factory Act (the notice was on the wall), and yet so dangerous a staircase or ladder be allowed to remain. Surely a balustrade might be placed round the aperture to prevent people falling through the floor. We noted also that a drain had overflowed in the yard below, but doubtless this was only a temporary accident. On leaving this workshop, we visited a court which belongs to the corporation of Birmingham. Here we found three closets in a most scandalous condition. The pails were overflowing with fæcal matter; and, unlike the pails at Manchester, there is no admixture of ash to mitigate the nuisance. It is therefore all the more urgent to empty the pails frequently. Facing these three closets, there is a little urinal, with porous and saturated brick walls and a pond of stagnant urine formed at their base. Such a urinal ought to be rebuilt, and made of slate or other non-absorbent material. Yet this disgusting and unhealthy place is the only accommodation available for the eight girls who work for a sweater living in this yard. Sometimes also the surface drainage of the yard does not act properly, and the inhabitants complained to us that the yard, or court, was often flooded with foul water. Some time ago a visit was paid to the sweater who works here. He then declared that he employed no one; that with his wife and his son—a mere lad—and his daughter he did what little work he was able to obtain. At most they engaged an errand girl. Yet, when we contrived to enter the workshop, we found no less than eight young women all bent over their task. In answer to our question, the sweater declared he was

under the Factory Act, but we failed to notice the regulation paper on the wall. We were also informed by neighbours that lights were seen burning in the workshop at all times of the night; and, as nearly all the work here is done by women or girls, this certainly suggests the probability of an infringement of the Factory Act.

A little tailor's shop, next on our list, giving on to a small street, presented no great defect in itself, as there were only four persons working there, but the sanitary accommodation was discreditable to the town. In the back yard we found several closets adjoining a large open cesspit. Most of the closets were locked, but the one that remained open for the use of the tailoresses was also frequented by a dozen workmen from a gunsmith's workshop. The cesspit, several yards long, was in no wise watertight. A part of the brick wall, which at once formed the basement of a house and the side of the cesspit, had crumbled away. There was nothing to prevent the contamination of the subsoil, and the neighbours all complained of the nuisance. This was aggravated by a urinal that, instead of communicating with the cesspit, overflowed into the yard. The condition of this yard is very similar to what we have seen in Spain when examining the centres of the recent cholera epidemic.

We next called upon an English sweater, a man who knows nothing about the trade, and yet was employing on the day of our visit eight girls. The closets, though awkwardly situated under the house, were kept remarkably clean; but the accommodation for dealing with the dust and house refuse was not satisfactory, and a drain at the end of a passage on entering the house gave off unpleasant odours. The workshop itself, however, was very light and clean, the windows were all open, and the air seemed fresh and pure. The girls all looked respectable and tidy. The neighbours testified that the hours were regularly kept, and that no night-work was done. In fact, this workshop afforded a pleasing contrast to what we had seen elsewhere. Yet here the sweating system prevails, though under better sanitary surroundings. This English sweater had undertaken to make a quantity of trousers for a large Birmingham firm for the sum of 1*s.* 6*d.* the pair; though, if the trousers were properly made and the worker properly paid, the price should be 5*s.* the pair. Another English sweater on a small scale whom we visited was very anxious for better closet accommodation. Some brass-workers from a shop close at hand used the same closet as the girls he employed; and the pails, for want of ashes or disinfectants, were very foul.

Three workshops we next visited were kept by Jews, and were all built in the same manner. They were in yards or courts, and situated against the walls of neighbouring houses. The side looking on to the yard consisted almost exclusively of window panes, so there was excellent, in fact superabundant, light. Numerous contrivances for opening these windows supplied free admission of air, and there were also skylights that facilitated a through draught. On the other hand, the workshops are very narrow, their cubic capacity small, and the presence of coke fires with pressing-irons produces so much heat that there is a very violent inrush of air whenever a window is opened. It is consequently extremely difficult to ventilate without creating insupportable draughts. Also immediately under the windows of one of these workshops we found a row of no less than nine closets—that is to say, of nine huge open metallic pails, with nothing to check the effluvia arising from their contents. Underneath the workshop there were two washhouses, and much stagnant dirty water about; so that, though ventilation in one sense is easy, the air obtained is not of the purest. Of course the workshop was dirty, and in great want of sweeping and scrubbing. In the second workshop, similarly constructed, but with the closets further off, there were five girls and two men working. This would give approximately 670 cubic feet each; but on a previous visit there were three men and eight girls, thus reducing the cubic space to about 400 feet; and, as the number of workers changes from day to day, we fail to see how the cubic space allowed is to be controlled unless similar methods are adopted as those governing common lodging-houses. In the third shop there were only three girls and two men, and here we found waterclosets with a two-gallon waste preventer flush.

After examining these three workshops, we came upon a case that recalled our experience in the East-end of London. This was no longer a workshop, but a small private dwelling house. The little room at the top was used as a workshop. The ceiling was very low, and falling in. Great holes were stopped up with bits of cloth and plugs made of dirty rags. Still the rain came through. Signs of misery, dirt, and poverty abounded on all sides. The ceiling was only 6 ft. 6 in. from the floor, and the cubic capacity of the room amounted to not more than 820 ft. Five persons, men and women, worked here, and therefore had but 167 cubic feet of space each, and there was no sign, of course, of the Factory Act regulations. The heat of the fire for the pressing iron was very intense. Work had been commenced at 5.30 on the morning of our visit. This miserable den contains, in all, four rooms, in which the sweater and his family live and work, and the rent charged is 5*s.* a week, which is high enough for so dilapidated and miserable a place. The use of the closet had to be shared with the inhabitants of a neighbouring house, and it was in a foul condition. Another private house presented totally different characteristics. This was apparently a very respectable dwelling, and situated in a good street. In a nice garden at the back there was a very clean closet; in fact, it all seemed like a middle-class villa rather than a sweater's abode. Yet in a bedroom on the top floor a number of girls were working. This house had already been visited previously to our arrival, and in a back bedroom a man and two boys were at work with pressing-irons. The heat was intense. The bed lay open; the slops of the night unemptied. In another bedroom girls were hard at work. The sweater was most energetic in his protests that he kept no workshop, and that it was only his private dwelling "mit von or two gals to help me do von leetle work just for me self." This is a very difficult case, for it is no easy matter to obtain an entrance into the bedrooms of an apparently highly respectable house.

There are also in Birmingham several very large clothes-making factories which may be considered in some respects as wholesale sweating concerns. One of these is kept by an Englishwoman, and we were not a little surprised to find that, according to the plate on the door, she announced herself to the world at large as a pianoforte teacher. But behind the parlour and the piano there was a large and, to our mind, overcrowded workshop, where we counted twenty-four girls actively plying the needle. Here, we were informed, forty-three dozen of moleskin trousers had been made in a week, and these are paid to the sweater at the rate of 6½*d.* each! The workshop was under the Factory Act. The girls seemed fairly contented, and there were no complaints as to working overtime, though the most they earned was 11*s.* a week, and there were learners in receipt of only 1*s.* a week, which is better than some places, where nothing at all is paid. We should have called upon another very large factory, but we were informed that our visit was expected; consequently a number of girls had been sent away to do their work at home, so that the factory should not appear to be overcrowded. We were further informed that at this establishment, though it is sometimes pointed out as a model workshop, the girls are charged 2*d.* a week for hot water for their tea, and take their meals in the rooms where they work. They are also made to pay 1*d.* for the use of the closets, and yet the closets are not kept clean.

In Birmingham, as in Liverpool and Manchester, we ascertained that the sanitary condition of the order shops, where gentlemen's first-class clothes are made, was often much worse than that of the sweaters' workshops. For instance, a tailor in one of the best streets of Birmingham has ten men working for him in a cellar. The roof of the cellars is 12 in. above the level of the street, and in this narrow space a window admits very insufficient light. The portion of the window that opens measures 4 ft. 8 in. in length, and has an average height of 9 in. At the further end of the cellar, right away from the window and from all possibility of out-door ventilation, is a watercloset. The heat and the darkness are very oppressive, and the germs of disease, if once introduced in such a place, could not in all probability be destroyed by the purifying influence of light and air. Another workshop for first-class clothes was well lighted, but very small, and situated immediately over a very offensive drain. The men who work for this tailor were formerly better accommodated, but now they have to content themselves with more restricted quarters, as the Midland Railway has cut through their old workshop. Indeed, we found it a common source of complaint among the better class of tailors that the town improvements had injured their position. Magnificent new houses have been built, with splendid shops, to attract customers; but in

these new constructions no provision is made for the journeymen tailors who do the work. Consequently many of the best workmen of Birmingham have been obliged to put up with the worst accommodation, while the greater number have been compelled to take their work home. One celebrated tailor used formerly to employ on his premises thirty coat makers, from fourteen to sixteen trouser makers, and two vest hands. Under the pressure of town improvements, he can now find room for only half this number of workers. From a sanitary point of view, the fact that the work should be taken to different private homes in various parts of the town naturally greatly increases the risk of contamination. But this is not the only inconvenience: the temptation to give some of the work to the sweater becomes more keen. The firm in question now actually does give out trousers to sweaters to be made up for 3*s.*, instead of paying, as formerly, 6*s.* to their own highly competent and skilled hands. The public, however, does not benefit by this change. They are charged as usual from 25*s.* to 35*s.* per pair of trousers, and in paying that price imagine that the goods are made up by the tailor's own men on his own premises.

Those first-class tailors who still have workshops for their men often content themselves with very inadequate premises situated at some distance from the elegant establishments where they receive their customers. One such workshop we visited, which was certainly very nicely built. It had an arched roof like a chapel, admirable light, various means of ventilation, and the closets so removed as to prevent any nuisance; but the workshop was very small and overcrowded. Close by, however, there was another workshop below the level of the street, the light of the windows being blocked by a wall and some stairs. The floor was unscrubbed, there was a strong smell of gas and sulphur, and accommodation for only three workers, though the tailor in question employs fourteen hands. The remaining eleven have to work in their own homes. A few yards further on there was another workshop, also very dark, gloomy, badly ventilated, and looking on to a wretched yard in urgent need of the scavenger's visit. In a different street we entered a little garret where six men out of the twenty-four retained by a first-class tailor were at work. These were all doing tailoring of the highest order, eighteen of the number working at home. The garret was very hot; ventilation, on account of fierce draughts when the window was open, being a matter of difficulty. Finally, we discovered twelve tailors at work in a little shop with a cubic capacity of some 2030 feet. This would give, as near as it was possible to measure, 170 cubic feet per person. Such is the nature of some of the workshops where tailors belonging to the trade union obtaining "log" prices—that is, the highest rate of wages—have to make the clothes worn by the most wealthy and fastidious members of the community. If public health is to be guaranteed against all the dangers that lurk in the folds of a new suit of clothes, the Factory Act and the Sanitary Act must be rigorously applied, not only where sweaters are concerned, but also to the first-class order shops.

Finally, we should not omit to earnestly urge that it is not merely the health of the producer and purchaser that is endangered by the present lax methods of making clothes, but the morals of the workers are also gravely compromised. Several unpleasant facts showing this to be the case were brought to our notice during our investigations, and we were assured that some of the unfortunate women who are now walking the streets of Birmingham were once in the employ of sweaters, and have been known to declare that all the horrors of their present degradation are preferable to the slavery they formerly endured. It will be seen, therefore, that in this question the services of the moralist as well as those of the political economist and the sanitary reformer are most urgently required.

(To be continued.)

ASSOCIATION OF SANITARY INSPECTORS: CONFERENCE IN LIVERPOOL.—Mr. Hugh Alexander (the chairman of the Association) presided at the third provincial meeting of the Association, held on Saturday last, in Liverpool. The attendance, fairly large, included representatives from various parts of the country, and the following resolution was unanimously carried: "That the interests of the public health demand that all candidates for the position of sanitary inspector shall be duly qualified, and certified by examination held under and directed by the authority of the Government."

REFORM AT THE ROYAL COLLEGE OF SURGEONS.

IT may be interesting to summarise the results of the petition of the Council of the Royal College of Surgeons for a Supplementary Charter, and of the agitations which immediately preceded this petition; in this way we can, perhaps, best demonstrate the narrow view which the Council of the College has taken of its duties and responsibilities by noting what it has asked for and what it has not asked for.

In our issue of June 4th, 1887, we published an abstract of the petition for a Supplementary Charter. That abstract contained nine clauses; three of these have been withdrawn, on the suggestion of the Lords of the Council, as containing matters in controversy between the Council and the Fellows and Members. Of the remaining six clauses, three were initiated by the Council and three by the Association of Fellows. These two latter groups present some instructive and characteristic differences. The Council, be it remembered, who are the nominal custodians of British surgery, and the controllers of surgical education in this country, have petitioned—(1) that the power of the College to hold lands &c. should be increased from £2000 to £20,000 per annum; (2) that a Midwifery Board which had been non-existent for thirteen years should be dissolved; and (3) that the number of members in the Board of Examiners in Dental Surgery should be increased. The Fellows, on the other hand, initiated the following:—1. An alteration which provides that Fellows may vote in the election of the Council either in person or by voting-papers; thereby abolishing the irksome and almost prohibitive requirement of compulsory personal voting. 2. That *any* Fellow of ten years' standing shall be eligible for election as member of Council, thereby getting rid of the conditions which required that a member of Council shall be in *bonâ-fide* practice as a surgeon, and should not practise as an apothecary. 3. The simplification of the mode of the nomination of candidates for election on the Council.

The difference between the political insight and practical wisdom of these two groups is sufficiently obvious, but these alterations only embrace a part of a larger scheme of reform proposed by the Association of Fellows, which would have secured to them—1. The more efficient control by Fellows and Members in a share of the management of the College, and a consultative voice in any proposed alteration to be made in the constitution of the College or in its bye-laws. 2. A more representative mode of electing the President. 3. A reconstitution of the Court and of the Board of Examiners. 4. A recognition of the right of the Members of the College to a reasonable representation on the Council. These and other suggestions have been declined by the Council.

To make our survey more complete, we may briefly notice what are the three controversial points in the petition.

The first related to the conditions of admission to the Fellowship by examination. The Council asked that these conditions should be determined by rules and regulations instead of by bye-laws. Respecting this proposal, we may remind our readers that at the first general meeting of Fellows and Members, held on March 24th, 1884, Mr. John Tweedy moved as an amendment, "That in the opinion of this meeting any alteration of the Charter enabling the Council to determine the arrangements for the examinations for the Fellowship by resolutions of the Council instead of by bye-laws would be likely to tend to the relaxation of the of the conditions of admission to the Fellowship, which is not expedient." *Vide* THE LANCET, March 29th, 1884. This amendment was supported by a close-reasoned and well-informed speech, pointing out the insecurity of these regulations and their possibly capricious character, and emphasising that no guarantee was thereby given for the maintenance of the high standard of the Fellowship examination. Though this amendment was then lost by a narrow majority, yet it has since borne good fruit, for the Fellows have shown that they will not tolerate any attempt to lower the academic status of the Fellowship.

The second controversial point related to the proposal to elect annually to the Fellowship ten instead of two members of twenty years' standing. Here it should be recorded, to the credit of the Members of the College, that they resisted

this expedient of the Council to conciliate the Members, and to lessen the numerical disproportion between the Fellows and Members.

The third clause, which has been withdrawn, relates to the creation of a class of Honorary Fellows. This clause has never really been a matter of controversy between the Council and the Fellows and Members; indeed, the suggestion was originally made by the Association of Fellows. Though rejected in the first instance by the Council, eventually it was adopted. The suggestion of the withdrawal of this clause was doubtless the result of misapprehension.

With regard to the claims and petition of the Members, sustained by their Association, the progress to be reported is absolutely *nil;* not a single specific request of the 6000 Members has been granted. Numbers do, and ought to, tell; and a representative House of Commons can scarcely acquiesce in the receding principle of non-representation. Meanwhile, we sympathise with the aspirations of the Association of Members, and trust that it will not be tempted to relax in its endeavour to secure a liberal measure of electoral recognition.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

A SPECIALLY convened meeting of the Fellows was held on the 18th inst., for the purpose of considering the question of the amalgamation of the Dublin Proprietary Schools with the Medical School of the College.

Mr. THOMSON proposed the following resolution: "That, having regard to the interests of medical education in Dublin, it is desirable to diminish, as far as possible, the number of private schools, and that, with a view to carrying out this principle, it be an earnest recommendation to the Council to take such steps as may be necessary to effect, on equitable terms, amalgamation of the existing private schools with those of the Royal College of Surgeons." He thought that for a small city like Dublin there were too many medical schools, for small schools could not be equipped to make them sufficiently attractive to students as compared with the University of Dublin, and probably in process of time with the Royal University of Ireland. The College of Surgeons had established a school which should not be allowed to die out. It had been said that the interests of some of the professors stood in the way, but some special arrangement might be made to obviate this objection. He believed that if amalgamation took place they would be better off. He would not enter into the details of the scheme, but the basis had been made, and it was open for the consideration of the Council. All he asked for, he said, was that the question should be considered by the Council. It was not binding on the College or the schools, but he asked the Fellows, on the ground of public utility, to pass the resolution.

Dr. KIDD seconded the resolution, and was of opinion that amalgamation should be carried out in the interest of medical education. Dublin medical schools were not making as much progress as other medical schools; and one reason for that was that their professors were not properly paid, and that sufficient remuneration was not given to any man to devote his entire attention to the chair he occupied. Any definite scheme would be premature; they were only asked to let the Council carefully consider a scheme which on equitable terms would conduce to amalgamation, and the honour and dignity of the medical profession should be paramount.

Dr. R. MCDONNELL and Mr. THORNLEY STOKER also spoke in favour of the proposition.

Professor RAWDON MACNAMARA thought the question should be considered from two points of view: from the College view, and from that of its professors. These latter had given up other appointments in order to take chairs in the College, and their interests should be considered. Dr. Kidd wanted the Fellows to affirm a general principle which would be of injustice to the professors of the College. He thought there was something behind the general principle put forward by those supporting the resolution which the Fellows were ignorant of. Even if amalgamation took place, another school might be started at any time. He thought it was utopian to suppose they could get any teaching which would compete with the University of Dublin. The fees under amalgamation would be insufficient, and fair competition for all schools was the best. The proposition was a very plausible one, but if details were given the Fellows would vote against it by a large majority.

Professor HAMILTON said he had not intended to speak, for he was aware that no powers of persuasion of his could change the votes of those who came prepared to carry this proposition. A month ago the matter was arranged, but only two days before had he received any notice of it; but he rose to say one word in defence of the College School, which had been indirectly maligned. He had no fear of the decay of the College School; it had increased year after year, and last year it was, with one exception, the only school which had shown progress, and that under considerable difficulties. This was the fourth attempt made to carry out the amalgamation scheme. One of its objects was to improve the College School; he was willing himself to do so, but the amalgamation scheme would not do it. Would it produce a harmonious body? On the contrary, it would give rise to a great deal of unpleasantness. He did not think the scheme would improve the College School, but the Committee of Management should see that the professors did not neglect the teaching of the classes, and performed the duties they had agreed to discharge. In conclusion, he thought that the professors should not have to bear any burden in reference to other schools.

Sir ROBERT JACKSON said that the Fellows should not be expected to vote for this proposal, and he would like to know if the funds of the College would be used to carry it out.

Mr. WHARTON thought it was contrary to the Charter to allow the school under the control of the College to come to terms with any other school. He believed it was a most inopportune time to discuss the matter; it should be at the annual meeting.

Mr. J. K. BARTON supported the resolution, and pointed out the various advantages the scheme would produce if carried out.

Mr. WARD thought time should be taken to consider the matter; and Mr. W. STOKER said he would vote for the measure.

On a division being taken, the PRESIDENT declared the motion carried.

Sir GEORGE PORTER claimed the right of having the names taken down of those who voted and entered on the Minutes of the meeting, which was agreed to; also a proposition of Professor MACNAMARA, that the details of the scheme be submitted to a meeting of the Fellows before being adopted. The proceedings then terminated.

THE COMPULSORY NOTIFICATION OF INFECTIOUS DISEASE.

THE following protest has been forwarded to the Town Council of Nottingham, and has been signed by fifty-two of the medical practitioners of the town:—

We, the undersigned Physicians, Surgeons, and General Practitioners of Medicine and Surgery, resident in Nottingham and the neighbourhood, hereby record our protest against the enforcement by the Council of the clause in the recent Gas Bill referring to the compulsory notification of infectious diseases. We do so on the following grounds:—

1. We protest on principle against the practice recently adopted by certain municipal authorities of inserting into local Acts clauses which are not connected with the main object of the Bill as revealed by its title, and which frequently contravene the statute law of the land. We decidedly disapprove of the mode in which this law has been foisted upon us. We do not think that a measure relating to the public health has any place in a Gas Bill, or that it ought, under any circumstances, to have been inserted without the consent of the profession or without full discussion by members of the Town Council and the inhabitants of the borough so seriously affected by it.

2. We consider that a physician's first duty is to his patients; that all other considerations are subordinate; and that the secrets revealed to us at the bedside, or discovered by us in our intercourse with those who honour us with their confidence, ought to be as sacred as those of the confessional. We conceive that we should be false to our trust and dishonour the profession did we accept the post of informers in any sense hostile to the interests of those who employ us. We are, moreover, convinced that the existence of this sentiment on the part of the profession will, under any circumstances, suffice to defeat the object of the promoters of the clause in question; since it will lead to evasion, wilful errors of diagnosis, falsehood, concealment, and consequent spread of disease.

3. We consider it our duty to warn all concerned that "compulsory notification" will, as surely as night succeeds to day, lead to compulsory isolation—i.e., the power to be exercised by the authorities of compulsory removal of suspected cases to institutions which are really pest-houses, and although we fully recognise the importance, on the voluntary principle, of segregating patients in certain well ascertained

cases of infectious disease, where the means of home treatment and isolation are totally inadequate, as in the overcrowded dwellings of the very poor, and in cases where the opportunity of removal is sure to be hailed by the sufferer and his friends as a positive boon,—we cannot admit that we should be doing our duty to patients in ordinary life were we, either *directly or indirectly*, the means of depriving them of the comforts of home or the sedulous nursing which the ties of relationship and the promptings of affection can alone supply; neither can we shut our eyes to the fact that the patient's life may be jeopardised by removal in the critical stages of acute disease; that the mortality is greater in hospitals than in private houses; and that he is also in them subject to the risk of contracting other maladies perchance more serious than the one from which he is suffering.

4. We beg to call your attention to the fact that the medical practitioners of Bolton, who state that they "have suffered grievously" under a similar clause which was schemed into a Private Bill in 1874, have petitioned Parliament for relief, alleging, among other serious objections to the compulsory notification, "that by reason of the medical attendant having to give such information disease is spread and the fatality increased from their services not being obtained, or only in the latest stages and the severest cases;" and this, we contend, is the natural outcome of all such attempts to do in one way that which can only be accomplished in another. Many persons find it difficult now to meet the expenses incurred for medical attendance in cases of unforeseen illness, and if to this we add the incalculable losses certain to be incurred by the public announcement of the infectious nature of the malady, the argument for dispensing with the services of the doctor will become irresistible. Shopkeepers cannot afford to lose their customers or see their property destroyed, neither can workmen afford to lose their situations, because one or other members of their families may happen to be suffering from infectious disease. Concealment will therefore become the order of the day, and concealment means aggravation and spread of disease. If it is alleged that the services of the doctor could only be dispensed with in the milder cases of disease, we reply that slight cases are quite as infectious and dangerous to the community as severe ones; and that the medical practitioner, when called in to such cases, can do far more and better work in the way of home isolation, disinfection, and prevention of the spread of disease than could be accomplished by notification and compulsory removal, with the drawbacks we have alluded to.

5. We believe that in sanctioning the proposal of the medical officer of health, the Council have not been sufficiently alive to the fact that it is very frequently absolutely impossible for the most skilled practitioner to say whether a patient is suffering from an infectious or contagious disease or not. Given a high temperature and a rapid pulse, who shall say, "This is fever"—typhus, typhoid, continued, or gastric? The difficulties are great, even with the best intentions; but if you add a motive for deceit, we declare that the Council will find they are insurmountable. In many cases, too, of measles, scarlet fever, and small-pox, the diagnosis is most difficult; indeed, it is well known that patients not suffering from small-pox have been sent to small-pox hospitals, that patients not suffering from scarlet fever have been sent to scarlet fever wards, and that patients suffering from slight attacks of one disease have contracted another and died from it.

6. We protest that there never was the slightest necessity for the clause in question; that all that could be accomplished by it would be better done without it. We never have objected, and never should object, to give the medical officer of health any information we have the right to give him, or that would tend to promote the health of the town. Of the necessity for, and the advisability of this, however, we must be the judges; and we are convinced that any attempt to force us from that position can only be attended by an aggravation of the evils which we are quite as anxious to mitigate as any member of the Town Council itself.

7. These sentiments were freely expressed at a recent meeting of the profession in this town, when three gentlemen—Mr. Beddard, Dr. Appleby Stephenson, and Dr. Charles Bell Taylor—were deputed to wait upon the Health Committee. We believe that if the intention had been carried out, you would not have decided to enforce the clause in question; and we venture now to submit that a law which is a nuisance to respectable people,—which is almost necessarily and frequently evaded by prominent and important citizens, and which falls signally to attain the end in view,—is, *ipso facto*, a bad law, and ought to be repealed. We therefore trust that you will reconsider your decision as to the enforcement of the clause in question; that you will not support Mr. Hastings' Bill, which we consider radically vicious; but that if you must help to legislate, it may be in the direction of supporting the Bill promoted by the medical practitioners of Ireland, which expressly stipulates that the medical attendant shall notify when he thinks fit, and not otherwise.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Chesterfield Rural District.—In this important rural district the number of infected houses which Dr. Angus Mackintosh found it necessary to visit during 1887 was larger than in either of the preceding two years, and amounted to no less than 414. In 185 scarlatina prevailed, in 160 there was measles, in 12 diphtheria, and in 9 small-pox. But, notwithstanding this, we cannot find that there is any intention to provide means by which the beginnings of such epidemics may be stayed by isolation. Lead poisoning was somewhat prevalent during the autumn of 1886, and it is regarded as having been associated with the long interval of dry weather. As in the case of the Sheffield supply, the water was found to be acid in reaction. Under these circumstances Dr. Mackintosh recommended that limestone should be placed in the reservoirs. This was done, and immediately the water became neutral; but after a short time it was again acid, showing that the amount of limestone had been insufficient. In some parts of this district both overcrowding and unwholesome houses need to be energetically dealt with, and the river Rother calls for action in respect of the numerous pollutions to which it is subjected. The annual mortality for 1887 was at the rate of 17 per 1000 living. The report concludes with a statement by the inspector of nuisances and surveyor, Mr. H. W. Weller, as to the general work of inspection and the various structural improvements effected during the year.

Handsworth Urban District.—The general death-rate of Handsworth, which formerly stood at about 15 and 14 per 1000, has materially diminished since the commencement of the present decade, and now stands at 12·6; but the infant mortality, as judged by its relation to births, has undergone some increase. Some diphtheria which occurred during the past year was made the subject of investigation, but, apart from the detection of certain insanitary conditions, which were remedied, the occurrence could not be definitely traced to its cause. As regards small-pox and scarlet fever, an arrangement has been come to by which cases can be received into the West Bromwich Hospital, but it is not taken much advantage of by the inhabitants in so far as scarlet fever is concerned. Dr. Welch advocates the adoption of the watercloset system, with separate receptacles for ashes and dry refuse, in order to deal with the present nuisance from midden-privies, and, having regard to the fact that the district is increasing at the rate of 200 houses a year, it is clearly now the time for the authority to decide on a proper system of excrement and refuse disposal. The table of sanitary work effected is a satisfactory one, and affords evidence of maintained activity.

Reading Urban District.—Dr. Ashby, who was only appointed to this district in succession to the late Dr. Shea in November last, deals in his annual report for 1887 mainly with statistics and infectious diseases. Comparing the mortality statistics during the past ten years, he shows that, synchronously with progress in sanitary work, there has been a distinct and progressive saving of life; and he adds that whereas the average annual mortality during the ten years ending 1886 was 17·8, it was 16·6 per 1000 last year. The two infectious hospitals have again turned out to be most useful in staying the spread of disease. The public water service is extending in the enlarged borough; bye-laws as to several matters have been framed and have come into operation; and the general sanitary administration of the town is fully maintained.

Wokingham Rural District.—Here the death-rate for 1887 reached 12·0 per 1000 only. During the year the schools had to be closed owing to infectious disease, but no material spread took place. Owing to Dr. Ashby's recent advent in this district, he does not make many recommendations, but he reminds his authority of the injurious effects which must result from residence in such wretchedly damp cottages as exist in some places.

Wokingham Urban District.—In this small town Dr. Ashby finds the death-rate for 1887 to have been 14·2 per 1000. There were only a few cases of infectious disease, but occasion is taken to repeat Dr. Shea's recommendation as to the provision of some small hospital in which first attacks could be immediately isolated. The excellent public water service is extending; good bye-laws have been put in operation as to several matters; but a code for slaughterhouses is still needed.

Bollington Urban District.—The need for improving drains which would constitute a source of danger on the advent of infectious disease is pointed out by Dr. Allen, the main body of the report being taken up with references to this class of disease and with statistical matter. The birth-rate for 1887 was 31·4 per 1000, and the death-rate 14·8.

ROYAL INFIRMARY, EDINBURGH.—The late Mr. Henry Ritchie Cooper Wallace, of Busbie and Cloncaird, Ayrshire, by his will directed, if his widow married again (an event which has recently occurred), that £7000 should be handed over to the Royal Lifeboat Institution and the remainder—£21,000—be paid to the managers of the Edinburgh Royal Infirmary, a windfall of which intimation has just been received in Edinburgh.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5440 births and 3398 deaths were registered during the week ending May 19th. The annual rate of mortality in these towns, which had steadily declined in the preceding five weeks from 21·9 to 17·6 per 1000, rose again last week to 18·9. During the first seven weeks of the current quarter the death-rate in these towns averaged 19·4 per 1000, and was 2·7 below the mean rate in the corresponding periods of the ten years 1878-87. The lowest rates in these towns last week were 14·2 in Nottingham, 15·3 in Leicester, and 16·3 in Halifax. The rates in the other towns ranged upwards to 23·0 in Oldham, 23·5 in Salford, 24·5 in Norwich, and 25·4 in Blackburn. The deaths referred to the principal zymotic diseases, which had been 329 and 287 in the preceding two weeks, rose again last week to 330; they included 140 from whooping-cough, 43 from diarrhœa, 39 from diphtheria, 37 from scarlet fever, 32 from measles, 30 from "fever" (principally enteric), and 9 from small-pox. No death from any of these zymotic diseases was registered either in Plymouth or in Halifax, while they caused the highest death-rates in Salford, Wolverhampton, and Sheffield. The greatest mortality from whooping-cough occurred in Manchester, Salford, and Sheffield; from scarlet fever in Bolton, Cardiff, and Blackburn; from measles in Nottingham and Wolverhampton; and from "fever" in Salford and Wolverhampton. The 39 deaths from diphtheria included 29 in London and 3 in Norwich. Small-pox caused 8 deaths in Sheffield and 1 in Bristol, but not one in any of the twenty-five other large provincial towns or in London. The Metropolitan Asylum Hospitals and the Highgate Small-pox Hospital contained only 7 small-pox patients at the end of last week, against 23, 18, and 12 on the preceding three Saturdays. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital was 987 on Saturday last, against 1047 and 979 on the preceding two Saturdays; the 92 cases admitted to these hospitals during the week showed an increase upon recent weekly numbers. The deaths referred to diseases of the respiratory organs in London, which had declined in the preceding five weeks from 444 to 260, rose again last week to 296, but were 11 below the corrected average. The causes of 95, or 2·8 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Leeds, Sunderland, Preston, and in five other smaller towns; the largest proportions of uncertified deaths were registered in Bradford, Salford, Sheffield, and Blackburn.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 19·5 and 21·1 per 1000 in the preceding two weeks, declined to 19·3 in the week ending May 19th; this rate exceeded by 0·4 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns ranged from 10·1 and 12·8 in Paisley and Greenock, to 20·6 and 22·1 in Edinburgh and Glasgow. The 488 deaths in the eight towns showed a decline of 46 from the number returned in the previous week; they included 14 which were referred to whooping-cough, 13 to measles, 10 to diarrhœa, 3 to diphtheria, 1 to scarlet fever, and not one either to "fever" or small-pox. Thus, 41 deaths resulted from these principal zymotic diseases, against 35 and 40 in the preceding two weeks. These 41 deaths were equal to an annual rate of 1·5 per 1000, which was 0·2 below the mean rate last week from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 11 and 19 in the preceding two weeks, declined again last week to 14, of which 11 occurred in Glasgow and 2 in Edinburgh. The 13 deaths from measles showed a further increase upon recent weekly numbers, and included 10 in Glasgow and 2 in Edinburgh. The 10 deaths attributed to diarrhœa, of which 6 occurred in Glasgow, considerably exceeded the numbers returned in recent weeks. Two of the 3 fatal cases of diphtheria were returned in Edinburgh. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had declined in the preceding seven weeks from 144 to 105, further fell last week to 96, and were 30 below the number in the corresponding week of last year. The causes of 53, or nearly 11 per cent., of the deaths registered in the eight towns during the week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 21·7 and 23·1 per 1000 in the preceding two weeks, further rose to 23·6 in the week ending May 19th. During the first seven weeks of the current quarter the death-rate in the city averaged 25·7 per 1000, the mean rate during the same period being 18·3 in London and 20·2 in Edinburgh. The 160 deaths in Dublin showed a further increase of 4 upon the numbers in recent weeks; they included 7 which were referred to "fever," 7 to whooping-cough, 4 to diarrhœa, 1 to scarlet fever, and not one either to small-pox, measles, or diphtheria; in all, 19 deaths resulted from these principal zymotic diseases, against 12 and 17 in the preceding two weeks. The annual death-rate from these zymotic diseases was equal to 2·8 per 1000, the rate from the same diseases being 1·8 in London and 1·4 in Edinburgh. The deaths referred to "fever," which had been but 2 in each of the preceding two weeks, rose last week to 7; and the deaths attributed to diarrhœa also exceeded the numbers in recent weeks. The 7 fatal cases of whooping-cough showed a decline of 2 from the number in the previous week. The deaths of infants and of elderly persons scarcely differed from the numbers in the previous week. Three inquest cases and 1 death from violence were registered; 53, or nearly a third, of the deaths occurred in public institutions. The causes of 20, or more than 12 per cent., of the deaths in the city were not certified.

THE SERVICES.

Surgeon-General W. Sim Murray, M.B., has been appointed Principal Medical Officer of the Southern District on his return from Egypt.

ARMY MEDICAL RESERVE OF OFFICERS.—Surgeon Chas. Tanfield Vachell, M.D., 1st Glamorganshire Artillery Volunteer Corps, to be Surgeon-Major, ranking as Major (dated May 23rd, 1888).—The undermentioned Officers to be Surgeons, ranking as Captains (dated May 23rd, 1888): Acting Surgeon Robert Ross Brown, 3rd Volunteer (Kent) Brigade Cinque Ports Division, Royal Artillery; Acting Surgeon William Richard Dambrill Davies, 5th Volunteer Battalion, the Cheshire Regiment; Surgeon James Duncan, M.B., 7th Lancashire Rifle Volunteer Corps; Acting Surgeon John Payne Massingham, 1st Shropshire and Staffordshire Artillery Volunteer Corps; and Acting Surgeon J. Sutcliffe, 2nd Volunteer Battalion, the Duke of Wellington's (West Riding Regiment).

ADMIRALTY.—Deputy Inspector-General of Hospitals and Fleets Michael Waistell Cowan, M.D., has been promoted to the rank of Inspector-General of Hospitals and Fleets in Her Majesty's Fleet, and Fleet Surgeon Alexander Turnbull, M.D., has been promoted to the rank of Deputy Inspector-General of Hospitals and Fleets in Her Majesty's Fleet.

The following appointments have been made:—Surgeon Cyril J. Mansfield, M.B., to the *Duncan* (dated May 17th, 1888); Surgeon Donald T. Hoskyn, M.B., to the Plymouth Division of the Royal Marines (dated May 24th, 1888); Fleet Surgeon G. A. Campbell, to the *Impregnable* (dated May 24th, 1888); Staff Surgeon Charles W. Magrane, to the *Lion* (dated May 24th, 1888); Surgeon Justin F. Donavan, to the *Thunderer* (dated May 18th, 1888); and Surgeon Martin H. Atock, M.D., to the *Orlando*, additional, undated.

RIFLE VOLUNTEERS.—5th Volunteer Battalion, the Cheshire Regiment: Charles Averill, Gent., to be Acting Surgeon (dated May 19th, 1888).—2nd Volunteer Battalion, the Duke of Cornwall's Light Infantry: Robert Thornton Meadows, M.B., to be Acting Surgeon (dated May 19th, 1888).—4th Volunteer Battalion, the Essex Regiment: Surgeon and Honorary Surgeon-Major J. Vance, M.D., resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the battalion on his retirement (dated May 19th, 1888).—2nd Volunteer Battalion, the Royal Warwickshire Regiment: Surgeon and Honorary Surgeon-Major T. W. Thursfield, M.D., resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the battalion on his retirement (dated May 19th, 1888).

THE VOLUNTEER MEDICAL STAFF CORPS.—The London Division: Henry George Read, Gent., to be Surgeon (dated May 19th, 1888).

Correspondence.

"Audi alteram partem."

FOREIGN BODIES IN THE TRACHEA.

To the Editors of THE LANCET.

SIRS,—In the last issue of the Proceedings of the Royal Medical and Chirurgical Society there is the history of a case of the removal of a metallic pencil cap from the trachea of a child. In the discussion that ensued reference was made to a case reported in the Transactions of the Society in 1843 by Sir Benjamin Brodie. It was said by one of the speakers in alluding to the case: "During the exhibition of conjuring a half-sovereign fell into the trachea. The trachea was opened by Sir Benjamin Brodie, but in this instance it was not necessary to use any instruments to extract the foreign body. The patient was turned on his face, and the body was inclined downwards, when, without the slightest spasm of the larynx, the half-sovereign passed into the patient's hand through the mouth, proving that a free opening in the trachea will influence the irritability of the larynx."

I would ask you, Sirs, to find space in THE LANCET for this letter. The case cited is so well known that it is desirable that, if mentioned, all the stages of the case should be alluded to. Sir Benjamin Brodie, in the Medico-Chirurgical Transactions for 1843, reports the case. After relating the early history, he says: "The patient had placed himself in the prone position with his sternum resting on a chair, and his head and neck reclining downwards, and, having done so, he immediately had a distinct perception of a loose body moving in the trachea; a violent convulsive cough ensued. ..... On April 21st, it was decided at a consultation that the experiment made by the patient himself should be repeated in a more complete manner. ..... On the 25th, he was placed in the prone position on a platform made to be movable on a hinge in the centre, so that on one end being elevated the other was equally depressed. ..... At first no cough ensued, but on the back opposite the right bronchus having been struck with the hand Mr. B—— began to cough violently. This process was twice repeated with no better result, and on the last occasion the cough was so distressing, and the appearances of choking so alarming, that it became evident it would be imprudent to proceed further with the experiment unless some precautions were used to render it more safe. ..... At a consultation it was agreed that an artificial opening should be made in the trachea between the thyroid gland and the sternum. In proposing this we had a twofold object: the one—that if the coin was lodged in any part from which it might be safely extracted by the forceps, this method might be had recourse to; and the other—if relief could not be obtained in this manner the artificial opening might answer the purpose of a safety-valve, and enable us to repeat the experiment of inverting the body on the movable platform without the risk of causing suffocation. The operation was immediately performed by myself, with the assistance of Mr. Aston Key and Mr. Charles Hawkins; and on it being completed, some attempts were made to reach the coin with the forceps introduced. The contact of the instrument with the internal surface of the trachea induced on every occasion the most violent convulsive coughing. The coin was not seized, or even felt. On another occasion we made some trials with the forceps, with the same result; so we were the more inclined to abandon the experiment with the forceps, as we had a strong expectation that the recurrence of the first experiment, now that the safety valve was established, would prove successful. ..... A probe or director was occasionally introduced into the trachea with a view to keep it in an open state. ..... On May 13th, the patient being placed on the platform and brought into the same position as formerly, the back was struck with the hand; two or three efforts to cough followed, and presently he felt the coin quit the bronchus, striking immediately afterwards against the incisor teeth of the upper jaw, and thus dropping out of the mouth, a small quantity of blood drawn into the trachea from the granulations of the external wound being ejected at the same time. No spasm took place in the muscles of the glottis, nor was there any of that inconvenience and distress which had caused no inconsiderable alarm on a former occasion."

I must refer those who may require a complete history of the case to the original paper in the Medico-Chirurgical Transactions by Sir B. Brodie. I have only to add that the forceps used, along with the half-sovereign, are in the museum at St. George's Hospital. The patient lived until 1859. I saw him at the time of his death, and had an opportunity of examining his body afterwards. The cause of death was quite unconnected with the accident related. The wound in the trachea was perfectly united, and there was no disease of the lungs.

I am, Sirs, your obedient servant,

May 22nd, 1888. CHARLES HAWKINS.

"ON CYCLIC (OR PHYSIOLOGICAL) ALBUMINURIA."

To the Editors of THE LANCET.

SIRS,—With regard to the discussion which is now taking place in your columns respecting the forms of albuminuria that occur in the puerperal state, and the conditions that give rise to them, I would venture to suggest that in a large proportion the albumen that appears in the urine is not derived from the kidneys at all, but is often extra-renal, so that, unless strict precautions are taken, one is very likely to be misled, and this form of extra-renal albuminuria be taken for cyclical or intermittent albuminuria, the more so as, like it, it varies considerably both as regards its appearance and disappearance, and as regards the quantity discharged at different periods of the day. Thus I have noticed the urines passed during the early part of the day to contain much albumen, whilst those passed later on may be free from it or present but little—a circumstance which is often noted as occurring in cyclical albuminuria, and which in this case can be explained by the vaginal discharges collecting during the night when the patient is in the horizontal position, and draining off when she begins to move about. Although the fact that albumen from this source finds its way into the urine is well known, still I am surprised how little attention is paid to it clinically, and I know of several instances in which mistakes have been made owing to attention not being paid to this very simple point. Even with men we may be misled by extra-renal discharges, for last year I saw a young man whose morning urine contained albumen very persistently, whilst subsequently his medical adviser found that these albuminous morning urines contained spermatozoa.

Respecting the occurrence of albuminuria, functional and organic, in the puerperal state, I believe it is much less frequent than is generally supposed. At the time I was collecting information on this subject I made inquiry among friends engaged in general practice, and was surprised to find how rarely such cases came under observation. With regard to the statistics of maternity hospitals, the number of cases, though no doubt more numerous, are very far from being excessive when we consider the enormous population from which they are drawn, and that many are sent in as urgent cases. Three forms of albuminuria I have met with associated with the puerperal state. 1. An intense congestion of the kidney, with almost, if not, complete suppression of urine, resembling the condition produced by cantharides, turpentine, or nitrate of potassium in large doses, suggesting some toxic state of the blood. 2. A more insidious form, in which attention is often first drawn to the state of the kidneys by the occurrence of dropsy and convulsions. The only kidney I have examined in this state presented no extreme degree of enlargement, and the changes in the glomeruli resembled those described by Klein as occurring in scarlatinal (glomerular) nephritis; this also is suggestive that the nephritis in this instance is due to some toxic or altered condition of the blood. 3. A transient albuminuria, often accompanied with slight jaundice or sallowness and symptoms of gastric disturbance, not associated, as far as I have been able to judge, with any renal changes, but which I have thought might be a prelude, if it had progressed, of acute yellow atrophy. The albuminuria in the earlier stage is probably of the kind I have described already in THE LANCET (Aug. 23rd, 1886). A somewhat similar condition is also occasionally met with in women about the menstrual period, associated with a

slightly jaundiced state, and probably connected with the *icterus menstrualis* of Senator.

Finally, with regard to the albuminuria that occasionally occurs after delivery, and which Dr. Johnson attributes to septic conditions, it is important clinically to remember that Dr. Matthews Duncan has traced a connexion between albuminuria and parametritis, which may be septic or otherwise, and not necessarily puerperal.

I am, Sirs, yours truly,

Queen Anne-street, W., May 21st, 1888. CHARLES H. RALFE.

To the Editors of THE LANCET.

SIRS,—I should be very unwilling to appear to ignore work which I esteem so highly as I do Dr. George Johnson's. Perhaps I was a little "ambiguous." I was far from intending to suggest that he had not made a careful study of what he and Dr. Maguire[1] call "*puerperal* albuminuria." I simply wished to point out that he had not adequately applied his knowledge of what I prefer to call "albuminuria *gravidarum*" to the elucidation of the general theory of albuminuria. Albuminuria in puerpery, strictly speaking, is comparatively rare. It is more properly an accident of gestation.

Accepting much of what Dr. Johnson describes in this connexion, I cannot assent unreservedly to some of his propositions. He arranges the cases associated with pregnancy in four classes:—

1. Women falling pregnant whilst suffering from chronic Bright's disease. He says, "Some may pass through pregnancy and parturition without serious complication." My own observations support this proposition. But experience has taught me also the danger of carrying observation too far. It may be interrupted by fatal cataclysm; or, escaping that, the kidney will hardly escape without increased damage. But cases of this class are not quite in point to the present argument.

2. "Cases especially of primiparæ (*primigravidæ* is the correct term), in whom albuminuria appears late in pregnancy, with œdema, headache, and not rarely convulsions. After delivery the urine soon becomes copious, and within two or three days it may be found quite free from albumen. In these cases the pressure of the gravid uterus on the vena cava affords the most probable explanation of the symptoms." This pressure-theory dates back from the time of Lever. Pressure may, indeed, be one factor in some cases, but it is certainly not all-sufficient. It does not account for Dr. Johnson's "third class, in which the albuminuria comes on early in pregnancy, and in which," he says, "evidence of acute desquamative nephritis is afforded by the presence of epithelial and blood casts in the urine."

The cause of a phenomenon (I avoid for the occasion the term disease) not seldom gives the best explanation. Now, we may exclude pressure as a constant or even frequent cause; but there is one potent factor always present in gestation whilst the fœtus is living—that is, the exalted nervous and vascular tension. This factor is in itself sufficient to produce albuminuria. In the slighter cases in which albuminuria is detected, and probably many pass undetected, the urine may become free by moderate purging and milk diet, the gestation continuing. In these cases it is quite arbitrary to assume nephritis. In more severe cases, in more advanced pregnancy, relief is sometimes obtained by venesection. I am not here concerned to advocate this as a plan of treatment. I simply assert what I have seen. It proves that by diminishing vascular tension you relieve or cure. So, applying the maxim "Curatio ostendit morbum," you get evidence that excessive tension was the efficient cause. This does not, indeed, prove that the kidney was not inflamed. In some cases, no doubt, there is nephritis. Dr. Johnson, representing me as "appearing to assume that the complete recovery of the kidneys excludes the theory of inflammation," does not sufficiently note my qualifications, for I simply "deny that it is frequent, far less general." And I insist in support of this upon two points mainly—first, not alone upon the "complete" recovery from albuminuria after labour, but upon the *rapid* recovery. Is it not reasonable to doubt that albuminuria persisting for days and weeks during gestation, and disappearing within a few hours, the gestation ended, was due to inflammation? Is this consistent with the history of true nephritis? The other point is my objection to receive as certain evidence of nephritis the presence of "epithelial and blood casts in the urine." Here I feel that I am treading on tender ground. I may challenge the reproach of being rash, or something worse. But I rely upon facts stated in my paper, that if we turn to "the broad field of the phenomena of gestation," we may see in the mucous membrane of the vaginal portion of the uterus, and other parts of the mucous tracts open to observation, intense hyperæmia, shedding of epithelial casts, and even of blood; yet all this disappears at the end of gestation. And this last fact is supported by Warburton Begbie's argument, that desquamation of the kidney glands in scarlatina is not necessarily due to nephritis. If not so in scarlatina, then, *a fortiori*, not in gestation, which cannot be called an inflammatory process.

I will not insist upon the term "physiological albuminuria." We want a term that will differentiate cases where there is no organic disease of the kidney from cases of inflammation or Bright's disease. Such cases are now known to be numerous. Sir William Gull in 1873[2] stated that boys about the age of puberty frequently had albuminuria. Dr. Johnson confirmed this. Dr. Clement Dukes, describing his experience at Rugby,[3] gave striking illustrations. These cases are not, I believe, interpreted as examples of nephritis, any more than the cases of "cyclic albuminuria" described by Dr. Pavy.

One might greatly extend this discussion, but I fear to trespass too much on your space. We have all yet to learn much from a study of the physiological experiments instituted by nature. And I must beg leave to insist that the light thrown by menstruation, gestation, and puerpery upon questions of general pathology has been too much neglected by those who do not study gynæcology.

I am, Sirs, yours faithfully,

Harley-street, May 1888. ROBERT BARNES.

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[1] THE LANCET, May 19th.

[2] Transactions of Med. Chir. Soc.

[3] Brit. Med. Jour., 1878.

NOTIFICATION OF INFECTIOUS DISEASE.

To the Editors of THE LANCET.

SIRS,—In response to the invitation, conveyed in your issue of the 19th inst., for expressions of opinion relative to compulsory notification of infectious disease, I have now the pleasure of giving you mine.

I have been the medical officer of health for this borough—in which we are now seeking to make provision for compulsory dual notification (i.e., by both householder and medical attendant)—for the past fifteen years, and my experience leads me to say that without such dual notification no benefit would be gained, and notification itself might just as well be given up altogether. After reading your article, I was hardly prepared to find you inclined to come to a different opinion, as the article itself leaned quite the other way. Statistics are useless in forming an opinion upon the matter, as you so well show, and I have been surprised to see those gentlemen whom you mention in your article putting them forward as possessing any value; zymotic mortality varies in different years to a very large extent, as everyone will own who is at all conversant with the subject, and the statistics thereof as bearing upon notification are quite inconclusive. I would prefer, instead of statistics, to rely upon common sense, and ask whether any sensible person will argue or believe that a small shopkeeper, a small laundry-keeper, charwoman, *et hoc genus omne*, would ever send on the single notification (I mean that by the householder alone), however much the doctor might dilate upon the enormity of not so doing; no, they would take the chance of discovery and pay the fine; and the doctor must either acquiesce and become *particeps criminis*, or else commit that very breach of confidence which is now made so much of, but which could no longer be called so when made compulsory by the dual system, under which the publicity so much dreaded is the least likely thing to happen. In a yet lower class than the preceding—e.g., sweep or dustman—the notification given would probably be either mislaid or accidentally destroyed. Doubtless in the classes more highly placed and more able to carry out all sanitary precautions single notification would be properly attended to; but the very classes from whom notification should come, if notification is to be of real value, are those who would fail in the matter. I do not see much force in the argument as proving anything

against the dual notification that people will not call in a doctor for fear of publicity; for under the single notification those would be the very ones to fail to send on the notice when given to them by the doctor, and also just as likely to ignore the sanitary precautions suggested by him. People such as these would, moreover, have the fear of an inquest and the consequent greater publicity before them, even if not moved by parental affection to call in a doctor. If we are to have notification at all, and every one is agreed as to its value, do not let us play with half-and-half measures, such as single notification; let *Pro bono publico* be the motto, and practical public benefit override sentimental private grievances, which would cease to be such were dual notification made compulsory by law.

I am, Sirs, yours faithfully,

Kingston-on-Thames, May 22nd, 1888. E. M. SHIRTLIFF.

MR. ERICHSEN AND THE ANTI-VIVISECTIONIST PRESS.

To the Editors of THE LANCET.

SIRS,—Your issue of the 12th inst., which only reached me last night, contains a long letter from Mr. Erichsen impugning an article of mine in the *Verulam Review* for April. I have the honour to request that, in accordance with the motto at the head of that letter, you will give equal publicity to my reply.

Mr. Erichsen says that "the cause of all this"—i.e., of my criticism of his Report for 1886,—was that he was "imprudent enough in that Report to point out that every experimenter on living animals in this country was either a Graduate of a British University or a Fellow or Member of the Royal College of Physicians or Royal College of Surgeons," &c. This is incorrect; for, in the first place, it is matter of absolute indifference to me whether a vivisector be a graduate or not. And, in the second, Mr. Erichsen made—fortunately—no such statement.

Mr. Erichsen goes on to say, with reference to a passing criticism on his arithmetic, that though his total was "given incorrectly (1035 instead of 1095), the items composing it were accurately stated." Now, the only arithmetical blunder to which in my article I drew attention, and that rather as a passing jest than seriously, was in the second paragraph of section 2, page 4, where he says: "Of the total of 1035 experiments 297 were, &c.; the remaining 278 were, &c.": when I took the liberty of pointing out that 297 + 728 make not 1035 but 1025. Mr. Erichsen's letter has led me to examine his figures a little more seriously, and I find that not only was the "total" wrong, but also the second and more important of the two "items"—which, instead of 728, should have been 798. So that the total should have been neither 1035, as stated by Mr. Erichsen, nor 1025, as arithmetically resulting from his figures, but, as now ultimately corrected, 1095.

Nor are these mere isolated blunders due either to misprint or casual clerical oversight. For the figures 728 are obtained by omitting the 70 lecture experiments. Whereas, in the very next paragraph Mr. Erichsen repeats his statement as to "these 728 experiments," and expressly includes among them these identical 70 "for lecture or demonstration purposes."

After which I need hardly burthen your columns with further criticism of the inspector's figures. But should Mr. Erichsen himself feel any interest in the subject, and be at all disposed to "back his opinion" to the amount, say, of a few pounds, I think I could undertake to show him that his "total" is even now not quite so accurate as he might possibly desire that it should be.

Mr. Erichsen says I have expressed a doubt as to whether he knows "so much of practical surgery as to enable [him] to distinguish between anæsthetics and antiseptics." I neither expressed, suggested, nor felt any doubt whatever of the kind. What I said was precisely the reverse—viz., "We do not believe that when Mr. Erichsen penned the above sentence he was under any delusion whatever upon this head." And I do not believe it now.

Mr. Erichsen accepts (with thanks?) my suggestion as to the rephrasing of his statement with regard to experiments performed under special certificates. But my assertion that that statment was "untrue" and "set up to hoodwink the public" is, he says, "entirely without foundation." His statement, which he here repeats, was that considerably more than three-fourths of the whole number of experiments were performed, "not only under the restrictions of the licence, but also under those of certificates held by the licensees." Now the restrictions of the licence impose, *inter alia*, the use of anæsthetics, and the obligation to kill before recovery from them; and forbid, *inter alia*, any experiments upon horses, mules, asses, dogs, or cats. The certificates dispense in all cases from some, and in some cases from all, of these restrictions. To say that an experiment performed under cover of a certificate which expressly removes a restriction is performed under that restriction is to say that which is "untrue." To speak of certificates which remove protection as though they increased it is to "hoodwink" those to whom that statement is addressed, but who have not the technical knowledge which would enable them to detect its untruth.

To my challenge as to his "knowledge of the character of the licensees," and the deduction therefrom that that "main object of the Act"—the avoidance of pain—has been carefully observed, Mr. Erichsen makes—wisely—no reference at all.

I enclose my name, which you are quite at liberty to append if you like, to this letter. But as my personality has really no bearing on the subject, I shall prefer to sign myself simply

Your obedient servant,

May, 1888. THE WRITER OF THE ARTICLE IN THE "VERULAM REVIEW."

*** The above letter certainly justifies the complaint which Mr. Erichsen raised regarding the kind of criticism to which his recent report has been subjected; and we may fairly contrast the levity of the irresponsible writer in the *Verulam Review* with the sober and well-weighed utterances of the officer whose duty it is to see to the carrying out of the law. Moreover, we cannot attach much weight to the criticisms of one who hurls charges of "untruth" and "hoodwinking" at the writer of a report the statements of which were made strictly in accordance with the provisions of the Legislature. The fact is—and a letter we have received from Mr. Benj. Bryan, but which we have not space to publish, confirms this to the full—that nothing short of the total abolition of vivisection will satisfy the supporters of those who make these ungenerous attacks on officials. Mr. Bryan infers that Mr. Erichsen has a bias in favour of vivisection, forgetting that he is best suited to carry out the provisions of a law who is well acquainted with the matters with which it deals. We sympathise with Mr. Erichsen in being regarded as the embodiment of the system which his opponents seek to utterly destroy; but that the attack should be directed upon him may be taken rather as evidence of the weakness of their cause, and as proof of their failure to show that the Act is not enforced to its full extent.—ED. L.

LUNACY CERTIFICATES.

To the Editors of THE LANCET.

SIRS,—I am glad to see that your able leader has drawn forth an expression of opinion on the subject of lunacy certificates and the consequences which too frequently have followed after medical men have conscientiously signed them. I quite agree with you that the course suggested in the new Lunacy Bill—viz., an appeal on the part of the medical man to a judge—is not sufficient protection. Should any person wish to bring an action against a doctor who has signed one of these documents, I would suggest that such a person should be the one who is to take the trouble in the matter, and not the hard-worked and probably innocent medical adviser. The prosecutor ought to be obliged first to submit his case to the Lunacy Commissioners, or Lord Chancellor's Visitors, and on the approval of two or more of them (one of whom should be a medical man) the complainant should be permitted to apply to a judge of the Court for permission to bring the action. Should the Commissioners in Lunacy or Chancery Visitors consider that the medical attendant had not been guilty of negligence, malice, or fraud, then their decision that no action should be brought should be final. This might or might not be subject to appeal. Matters should be so arranged that the medical man should be put to absolutely no expense, and also to a minimum of anxiety and inconvenience.

I am, Sirs, yours obediently,

HENRY SUTHERLAND, M.D.

Richmond-terrace, Whitehall, S.W., May, 1888.

MANCHESTER.

(From our own Correspondent.)

WHITSUN WEEK IN MANCHESTER.

THIS might not inaptly be termed "Carnival week"; from Monday morning until Saturday night more "play" is done than work. As usual, yesterday many of the Church Sunday-schools paraded in Albert-square, upwards of 20,000 children being assembled, and went in procession to the Cathedral. Fortunately for the little ones the weather was favourable, and the minimum amount of mischief will be done by the sudden change, for many of the children, from winter clothing to muslin and other like summer costumes. Amongst all classes who are this week seeking recreation and a change from their daily toil are most of our local Volunteer regiments, the Lancashire coast being dotted for miles with the white tents of their encampments. The youngest of our corps, the Medical Staff Corps, are on Friday and Saturday going out into Derbyshire for a two days' route march. A working lads' camp is also pitched for a week at Bollington, this being a commendable effort to take out a number of our poor city boys and give them a healthy change of air and recreation for a short time.

HOSPITALS.

And yet more special hospitals. It is difficult to see any legitimate *raison d'être* for another "Eye and Ear Hospital," yet such a one has been started. With an ophthalmic department at the infirmary, the magnificent Eye Hospital in Oxford-road, and the branch thereof at St. John's-street, surely ample accommodation exists for this specialty, whilst within a stone's thrown of the new venture is the old-established Ear Institution, with an active and efficient organisation.—At the annual meeting of the Lock Hospital last week, a record of useful work, done in an unostentatious way, was presented. Owing to an impoverished exchequer, however, only twenty beds had been kept occupied out of a total of sixty which are available. It was proposed and carried that the skin department, hitherto an integral part of the institution, though carried on at different premises, should be severed from it and henceforth conducted as a separate skin hospital at Dale-street, where for some four years past Dr. Brooke has devoted his attention to this branch of work. The vacancy caused by the death of Mr. Clubb has been filled up by the promotion of Mr. A. Blackmore from assistant surgeon to surgeon. For upwards of half a century the name of Blackmore (in the person of the present surgeon and of his father before him) has been connected with the staff of this charity.—An example of the extreme care required to admit and treat small-pox cases in the same hospital, under the same staff as other infectious diseases, has lately had an unfortunate illustration here. A patient admitted for scarlet fever contracted small-pox during her convalescence. Since the commencement of the present year about seventeen deaths from small-pox have occurred, and several cases are still in hospital; but all fear of anything like an epidemic has for the present passed away.

OWENS COLLEGE.

A large number of invitations has been issued by the President and Council of the College for a *conversazione* on the 8th prox., to inaugurate the opening of the new museums. A very large gathering is expected on the occasion. The vacancy in the chair of Surgery, caused by the resignation of Mr. Lund, will shortly be filled. Several candidates are in the field, but it is probable that the final selection will be between Mr. T. Jones and Mr. F. Southam, both of whom have for a long time taken part in the surgical courses of the College. Mr. Hardie, who as surgeon to the infirmary enjoys a wide popularity among the students as a clinical teacher there, is also mentioned as one of the candidates, though he has not hitherto taken part in the special College work.

DEATH-RATE, OVERCROWDING, ETC.

The articles which lately appeared in THE LANCET on "sweating" appear to have stirred more than one of our local authorities as the subject has been mentioned at boards of guardians, Jewish boards, local boards, as well as in the city council. The articles have certainly done good and directed attention to other matters of a like nature, particularly overcrowding, and some reports given to the guardians by their relieving officers as to the latter have been brought under the notice of the health authorities. In two rooms, with only 858 cubic feet each, were found a man, his wife, and four children, a lodger and his wife with five more children. With a view to calling public attention more forcibly to our shockingly high death-rate, the Manchester and Sanitary Association have arranged for a public meeting early next month, and Dr. Ransome, Dr. Leech, Dr. H. Simpson, Sir Wm. Roberts, and other local sanitarians and professional men, will, it is hoped, be present, when its causes and its remedies will be discussed.

Manchester, May 22nd.

LIVERPOOL.

(From our own Correspondent.)

FUNERAL OF DR. A. C. RICH.

THE high esteem in which this lamented young practitioner was held was shown on Saturday last, when his mortal remains were borne to the grave. They were followed by a large number of representatives of the postal and telegraph department, the city police, ambulance corps, and the shoeblack brigade, in addition to many professional and other friends, who followed the *cortège* from the residence of the deceased to the church of which he was a member, where the first part of the burial service was read. At the cemetery there was, in addition, a large concourse assembled, including members of the profession, members of the 4th Lancashire Volunteer Rifles, to which the deceased was surgeon, some of the county constabulary, and others. The funeral arrangements were of the simplest character.

SWING-BOAT FATALITY.

An inquest was held to-day at Bootle on the body of a young woman, aged twenty-two years, whose death was caused by falling out of a swing boat on Whit Monday. It appeared that there was in the swing boat at the same time a young man under the influence of drink; also that while the deceased was in the act of falling to the ground another swing boat struck her on the head, the two boats being only 3 ft. 7 in. apart. The jury returned an open verdict, expressing also an opinion that there should be a competent man in charge of the swing boats, and that the space between them should be enlarged, so that persons falling out of one boat should not run the risk of being killed by an adjoining boat.

Liverpool, May 23rd, 1888.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

LEAD POISONING.

AN inquest was held in Newcastle last week upon the body of a girl aged fifteen, who died rather suddenly in a fit. It appeared from the evidence that she was employed at some lead works until October last, when she was seized with a fit which compelled her to give up work. Since then she has complained of pain in her head, until at last it brought on a convulsive fit in which she died. The verdict was in accordance with the evidence: "Death from natural causes accelerated by lead poisoning." Seeing the susceptibility of young girls to the action of lead as a poison, and the numerous cases reported here amongst workers, it would be well if some rule could be adopted to prohibit females undertaking this dangerous employment unless of adult age.

HARTLEPOOL.

The Hartlepool Port Sanitary Authority, at its meeting on the 17th inst., received a report from Dr. Briggart, the medical officer, stating that the late outbreak of fever had caused three deaths, while there remained in the hospital up to date four patients.

CARLISLE.

The annual collections for the principal medical charities of Cumberland and Westmoreland were taken on last Sunday. I have not yet heard of the comparative amount. At the Carlisle Cathedral the preacher mentioned incidentally that at the Cumberland Infirmary much expense was being incurred at present in adapting the building to modern

sanitary requirements, and that the Carlisle Dispensary was so much in need of funds that unless more income could be obtained the services of two medical officers would have to be dispensed with. The extensive alterations in the buildings of the Silloth Convalescent Institution, to which I referred to in a previous note, are to be commenced forthwith.

RIPON.

The annual hospital services were held at Ripon on last Sunday, when collections were made for the dispensary and Jepson's Hospital. The local Volunteers, with the Friendly Societies, formed a procession to the cathedral, which was crowded.

GUARDIANS' FINANCE.

The Local Government Board having declined to sanction the proposed rearrangement of the salary of Mr. Horne, the surgeon to the workhouse at Stockton, by which the extra medical fees above a certain sum should revert to the Board, the Finance Committee of the guardians have recommended that the salary of Mr. Horne be fixed at £190 as district medical officer and £140 as medical officer of the workhouse, *plus* the vaccination fees, estimated at £45, and that the Local Government Board be requested to suspend the operation of the order requiring the payment of extra medical fees. Several of the guardians took exception to this proposal of their Finance Committee as unfair, and as virtually reducing the salary of the medical officer from the terms of the advertisement on which he accepted the appointment. The majority of the guardians took this view, and referred the report back to the Finance Committee.

A HEALTHY PARISH.

I thought I had given you in my last some rare instances of old age in my account of persons who have died at Whitley during the present spring, but a correspondent of the *Newcastle Journal* fairly surpasses my account, inasmuch as his instances are alive in the parish of Castleton, Roxburghshire, on our borders. He says that at the last census the population of the parish was 2256, which cannot have increased much, if any, since then. In the parish at the present there moment are twenty-one persons (eight males and thirteen females) whose ages conjointly number 1800 years; the youngest is eighty, and the oldest ninety-eight. The latter is a widow, who, though blind, enjoys excellent health, and converses intelligently. There are three persons of the age of eighty, two of eighty-one, one of eighty-two, two of of eighty-three, one of eighty-four, four of eighty-five, three eighty-six, one of ninety, one of ninety-eight. Most persons will agree with the conclusion of the correspondent of the *Newcastle Journal* that "there are probably few parishes in the kingdom with such a record."

Newcastle-on-Tyne, May 23rd.

DUBLIN.

(From our own Correspondent.)

PROPOSED AMALGAMATION OF THE DUBLIN MEDICAL SCHOOLS.

A MEETING[1] was held at the Royal College of Surgeons on the 18th inst., in reference to the proposed amalgamation of the private medical schools in Dublin with the medical school of the Royal College of Surgeons, but a few remarks may be necessary to explain how matters stand. The two private schools are the Carmichael and the Ledwich School, and these, it is proposed, shall be joined with the school of the College of Surgeons. Amalgamation of the Carmichael School with the College was tried last year, but failed; and on this occasion the Ledwich School, which hitherto has been ignored by those taking an active part in the agitation, has been admitted to the proposed union, evidently not from any desire to secure the services of anyone belonging to that institution, but for the purpose of disarming the hostility of its proprietors. The terms arranged upon have not yet been disclosed. In the meantime, there are a few circumstances to which attention may be drawn, as showing the difficulties which must arise in carrying out the amalgamation of these medical schools. There are in the three schools (not including night lecturers) five lecturers in anatomy, five in surgery, and five in physiology and histology; and if the scheme becomes an accomplished fact, there cannot well be more than two lecturers appointed in each of the subjects, with a result that three must be removed in each of the chairs of anatomy, physiology, and surgery. In all equity compensation should be given to gentlemen having vested interests who are summarily removed, and can the College be called upon and be expected to pay large sums of money for this purpose? If this is expected by the promoters of the scheme, the Fellows of the College will no doubt have something to say in the matter. Next it is alleged that one of these private schools has incurred a considerable debt, and is this to be paid off by the College also? Lastly, to bring in the staffs of what up to the present have been rival institutions, and to expect them to work harmoniously together, only shows how sanguine are the promoters of the proposed amalgamation scheme. This was pointed out in the recent debate at the College by Professor Hamilton, who believed—and many will endorse his words—that it will give rise, on the contrary, to a great deal of unpleasantness. This scheme ought to have been reserved for discussion on June 2nd, when the provincial Fellows will be up in town to receive the annual report of the Council, for at the meeting held last week only fifty-five Fellows voted, a very insignificant number as compared with the list of Fellows on the roll of the College.

[1] The report of this meeting will be found on p. 1050.

ROYAL COLLEGE OF SURGEONS.

The portrait of Her Majesty was unveiled at the College this morning (Tuesday) by his Excellency the Lord-Lieutenant. An address was presented by the President and Council, to which his Excellency returned a written reply. The portrait, which was specially ordered by the College as a memorial of Her Majesty's Jubilee year, is a full-length figure of the Queen standing on a dais, and dressed in satin, with ermine and white lace, and decorated with the Order of the Garter. His Excellency will dine at the College this evening. In addition to the names mentioned last week of candidates for a seat on the Council may now be added that of Mr. Henston, lecturer on anatomy in the Carmichael School of Medicine.

ROYAL UNIVERSITY OF IRELAND.

At a meeting of the Senate last week, it was resolved to add to the list of recognised medical institutions the Eye and Ear Hospital, Nile-street, Cork. The following alterations in the regulations were adopted:—The Senate have modified the rules respecting the standing candidates for the Travelling Medical Scholarship; so that, in and after the year 1889, any persons who may have passed the examination for the Primary Medical Degrees, either in the year in which the Scholarship Examination is held or in the year immediately preceding, shall be eligible to compete for it. The Senate will admit to the degree of Bachelor of Surgery all graduates who obtained medical degrees in the Royal University in the years 1882 to 1887 inclusive, upon payment of the fee of £5 and upon passing an examination in operative surgery only, provided such graduates had obtained at least 50 per cent. of the marks assigned to surgery at the Medical Degree Examination. The Senate will also admit to the degree of Master of Obstetrics all such graduates as above mentioned upon payment of the fee of £2, without further examination, provided such graduates had obtained at least 50 per cent. of the marks assigned to midwifery at the Medical Degree Examination.

KILKENNY DISTRICT LUNATIC ASYLUM.

His Excellency the Lord-Lieutenant has promoted Dr. William Zachary Myles to the post of resident medical superintendent of this asylum, in the vacancy caused by the decease of Dr. Barry Delaney. Dr. Myles, who has been senior assistant at the Richmond Lunatic Asylum, has had twelve years' experience, and it must be said that, in every respect, he is well fitted to discharge the important duties of the post to which he has been appointed.

DEATH FROM ALCOHOLIC POISONING.

A death resulted in one of the inmates of a Dublin hospital last week from alcoholic poisoning caused by repeated doses of methylated spirits.

HEALTH OF IRELAND FOR MARCH QUARTER.

The birth-rate in Ireland for the March quarter was 1·1 per 1000 under the average rate for the corresponding quarter of the past ten years; and the death-rate was 0·9 over the average for the same period. Compared with the corresponding quarter of 1887, the returns of pauperism

show an increase of 337 in the average number of workhouse inmates on Saturdays during the quarter, and a decrease of 1333 in the average nurmber of persons on out-door relief.

Dublin, May 22nd.

PARIS.

(From our own Correspondent.)

SOCIÉTÉ FRANÇAISE D'OPHTHALMOLOGIE.

I CONTINUE this week the report of the Proceedings of the above Society.

In a paper on Diphtheria of the Conjunctiva, Dr. Venneman explained that fibrinous inflammations of the conjunctiva are superficial—that is to say, croupal; or profound—that is to say, diphtheritic, as are all fibrinous inflammations of the other mucous membranes with a simple epithelial covering. Diphtheria, a general contagious malady, is not the only general affection capable of provoking fibrinous inflammation of the conjunctiva. It is important to distinguish between conjunctival diphtheria, localisation on the conjunctiva of this infectious malady, and the fibrinous inflammations of the conjunctiva of other origin, with which the microbe of diphtheria has nothing to do. If diphtheria of the conjunctiva is rare in the new-born infant, as is the diphtheria of the other mucous membranes, croupal and even diphtheritic inflammations occur with the greater facility, according as the child is sickly and the caustic treatment is more energetic. Diphtheria of the conjunctiva alone requires an energetic antimicrobian treatment, for which the author recommends the mucilage of tannin, which he found very useful in the treatment of croup. The fibrinous conjunctivitis of other origin requires only an ordinary antiphlogistic treatment. Dr. Petresco of Bucharest, in a case of diphtheritic conjunctivitis in a child of three years, and in other cases of the disease, obtained very favourable results from the application of fresh lemon juice. Dr. Abadie had occasion to treat three children affected with very severe diphtheritic conjunctivitis, and he tried by way of comparison the efficacy of lemon juice and the other remedies usually employed in such cases. To one eye he applied lemon juice, and to the other powerful antiseptics, such as iodoform and boric acid, and he soon remarked that the eye treated with lemon juice was cured much more rapidly. He has since employed nothing else. He applies the lemon juice to the entire surface of the conjunctiva without being concerned about the cornea, and these applications are repeated every six hours.—Dr. Trousseau of Paris read a note on Gummata of the Palpebral Conjunctiva. From personal observation he had come to the conclusion that in the chronic form there is little external reaction, and there exist on the mucous membrane small tumours analogous to chalazions, which burst and then separate. In the acute form the lid is red and swollen, particularly about the tarsal edge; the glands are also swollen. On the conjunctiva one observes slight elevations, which soon ulcerate. The ulcerations are circular; the edges are adherent, perpendicular, with a striated base, which is covered over with a greyish pellicle, which resembles a piece of hemp. If the treatment is followed, it is all filled up, and there remains a white fibrous cicatrix. The prognosis is favourable, notwithstanding the possibility of cicatricial retractions. Complications are rare. The average duration of the affection is from six to ten weeks. From his experience, the author can affirm that in this affection it is the tarsus which is the point of origin. It is principally in the secondary and severe periods of syphilis that one sees gummata of the lids. The diagnosis is easy, but at the same time one must avoid confounding the malady with tarsitis, chancre of the conjunctiva, lupus, epithelioma, and, above all, tuberculous ulcerations. The general specific treatment should be employed at once, and with great energy. The local treatment consists in antiseptic washings, and in applications of iodoform ointments.—In treating of the etiology and treatment of Scleritis, Dr. Dufour remarked that the principal cause of this affection is rheumatism. It is also frequently observed in gouty subjects. As regards treatment, the author has given up local applications, excepting atropine and warm compresses. The general treatment consisted of the usual remedies employed in those diatheses. With reference to the general treatment, Dr. Panas spoke highly of the good effects of the salicylate of lithin, which he preferred to the other preparations of salicylic acid.—Dr. Grandclément of Lyons read a paper on Traumatic Keratalgia. He described it as a sort of periodical and undefined neuralgia of the cornea, following a very slight traumatism of this membrane. The author attributed the neuralgic phenomena to a slight neuritis of one or more of the ciliary nervous filaments of the cornea comprised within the sphere of action of the slight traumatism. If the stronger traumatisms of the cornea, such as those resulting from the incrustation of a fragment of iron, steel, &c., never leave behind them similar phenomena of neuralgia, it is because the nervous filaments touched had been destroyed and not simply bruised. Dr. Coppez, in taking up the subject, said the best treatment for such cases was massage, practised with the aid of the yellow precipitate ointment. Dr. Lasalle of Villefranche remarked that the affection described by Dr. Grandclément is not so new as he would appear to say; it had been described by several authors, notably by Dr. de Wecker in his "Thérapeutique Oculaire." Dr. Lasalle attributed the pain in this affection to a slight epithelial erosion of the cornea, which erosion is reproduced every morning when the subject opens his eyes. The best means to be employed, according to this author, is the occlusive bandage, which should be applied until the complete cicatrisation of the slight loss of substance takes place. Dr. Grandclément remarked that he found nothing relieved the pain so much as cocaine.—Dr. Martin, in introducing the subject of the Pathogeny of Electric Ophthalmia, remarked that it is generally supposed that the ocular accidents engendered by the electric light (voltaic arcs) were due to chemical radiation, Divers experiments, performed by the aid of chemical radiation, established, on the contrary, its innocuousness. On the other hand, a number of cases of electric ophthalmia have been observed in such conditions that the chemical radiation was very slight; it is when the electric focus is surrounded by a globe of ordinary glass. The author compared electric ophthalmia to that produced by the eclipses of the sun, the reflections from sand or snow, and all intense radiations from an artificial focus. Hence no other explanation is necessary for the occurrence of electric ophthalmia.—Dr. Despagnet of Paris communicated a case of Relapsing Blennorrhagic Iritis, which was remarkable for the circumstance that it was reproduced regularly each time that the patient contracted a fresh gonorrhœa. The author attributed the production of iritis to the diffusion of infectious micro-organisms in the system, and to their arrival in the anterior chamber a medium which is favourable to their pathogenic action.—Dr. Grandclément related a case of Monocular Hemeralopia which was cured by four subcutaneous injections of antipyrin into the temples. After having in vain tried all the remedies usually employed in these cases, he was induced to try the injections of antipyrin to relieve the very painful spasm of the orbicular muscle of the lids of the eye affected, and suggested that we have in this remedy a simple and easy means of checking those epidemics of essential hemeralopia which so frequently prevail in the provinces.—Dr. Costomiris of Athens drew attention to a therapeutic method the origin of which goes back to the mythological times. The author stated that this method consisted in the action of licking the cornea as dogs lick the eyes of their puppies. He had it employed for the first time in a hopeless case of adherent leucoma with hypertonia and complete cecity, where all rational intervention was systematically refused by the parties interested. Surprised at the marvellous result which was produced, he recommended this treatment for specks of the cornea, pannous and parenchymatous keratitis, chronic ulcers and keratoconus, in which cases he was very successful. Dr. Costomiris added that, to this day, in Greece, where it is a popular remedy, one of the members of the family of the patient is employed for the purpose, but before the operation of licking he chews a bit of rue.

Paris, May 22nd.

TESTIMONIALS.—Dr. Albert Croly, of Rathfarnham, has been presented with an address, accompanied by a valuable gold watch, silver tea service, and set of gold studs.—Mr. A. H. Corley has been presented with an address and testimonial, consisting of a silver tray and pair of claret jugs.

NEW YORK.

(From our own Correspondent.)

LONGEVITY OF PHYSICIANS IN THE STATE OF ILLINOIS.

DR. RANCH, Secretary of the State Board of Health of Illinois, states that he has been impressed with a conviction that the wear and tear of medical practice has been underestimated, and that medical practice is not so conducive to longevity as is popularly supposed. He cites statistics of authorities as follows: Of 490 deaths of Massachusetts physicians the average age was fifty-seven years, and 35 of every 100 attained to seventy years; the average age of the subjects of Gross's Medical Biography was fifty-nine years; of the 145 physicians noticed in Thatcher's work the average age at death was 62·8 years. He believes that these are the selected lives, and that the list is composed largely of city physicians and men who, in smaller towns, are in a position to select their practice and adjust their labours with some regard to regular hours of sleep, meals, and relaxation. Compared with these biographical subjects, Dr. Ranch submits the results of his official correspondence, which shows that the average age of physicians at death in Illinois is not much over fifty-two years, and that only about 11 instead of 35 in every 100 attain to seventy years. These deaths include those of physicians in the populous city of Chicago. During ten years phthisis caused death in 15 per cent. of the cases, diseases of the lungs in 14 per cent., and diseases of the brain and nervous system in 13 per cent.

DR. CORNELIUS REA AGNEW.

The death of Dr. Agnew is a serious loss to the profession of this city and country. The cause of death was perforation of the appendix vermiformis, for which laparotomy was performed, with temporary relief, but without permanent success. Dr. Agnew was one of the leading ophthalmic surgeons of this country. He was, however, a many-sided man, being prominent in sanitary, social, political, and educational circles. He was one of the first to grasp the suggestion of a Sanitary Commission during the late war, as made by the late Dr. Elisha Harris, and gave to its organisation and work every energy of mind and body. He died at the age of fifty-eight, and in the midst of the active duties of his profession.

EXECUTION BY ELECTRICITY.

The Bill before the Legislature of the State of New York has passed one branch, but is meeting with opposition from some medical gentlemen. It is alleged that it is a cumbersome method, which may fail in its object, and that it is no more humane than execution by the gallows. The measure, however, is popular, largely on account of its novelty and the universal horror which hanging inspires.

ASYLUM FOR INSANE CRIMINALS.

New York State has nearly 500 insane criminals, and accommodation for about 200. The present asylum is an annex of one of the State prisons. The other insane criminals are in the State asylums, prisons, and gaols. A new asylum for this class is about to be erected, independently of the prisons, on an eligible site at Matteawan, on the Hudson. The total cost will be about $500,000, and the structure will be one of the most complete of its kind in the world.

SWINE DISEASE IN GERMANY AND FRANCE.

Trichinosis prevails to such an extent in certain parts of Germany as to attract the attention of the United States Minister to the dangers of the importation of the meat of diseased hogs which are bred in that country. The Consul at Marseilles also represents, under date of Feb. 4th, 1888, that for a number of months there has prevailed among the swine of a large section of France a highly contagious and infectious disease, which is thought to be similar to hog cholera. These reports have led to the recommendation by the President of a law prohibiting importation of swine or hog products from either of these countries into the United States.

New York, May 5th.

THE GREAT NORTHERN CENTRAL HOSPITAL.—We understand that a letter has been received by Mr. Dewey, hon. secretary of the Islington Jubilee Fund, from Sir Francis Knollys, intimating that it will give their Royal Highnesses the Prince and Princess of Wales much pleasure to open the new Hospital on June 25th, at 4.30 P.M.

Obituary.

WALTER J. BRYANT, F.R.C.S. ENG., M.R.C.P. ED.

WE regret to have to announce the death, in his seventy-sixth year, at his residence, Highwoods, near Reading, of Mr. Walter J. Bryant, a well-known practitioner in the West-end of London. Born in 1813, he was educated privately, and in due time apprenticed to his father, Dr. John Bryant, who practised for many years with great success in the Edgware-road. In 1834 he entered as a student at University College Hospital, then just making a name as one of the leading schools of the metropolis, where he had the advantage of studying under Liston, Samuel Cooper, Elliotson, Jones, Quain, and other distinguished teachers, and was a contemporary with Morton, Erichsen, W. Wood, and Richard Quain. He served the office of house-surgeon to Liston, and strong and lasting friendship was the result of this association. In 1839 he passed the Hall, in 1843 the College, and became F.R.C.S. in 1858 and M.R.C.P. Ed. in 1870. Meanwhile, on his marriage in 1840 with the daughter of Admiral Parris, he entered into partnership with his father, and when the latter was compelled through ill health to retire in 1843 he moved to Sussex-square, and soon struck out for himself a large and lucrative practice in the then new and fashionable district of Bayswater. Finding, however, that the wear and tear of a large general practice began to tell upon him, he gradually withdrew from the more laborious part of the practice, built a house at Burghfield, near Reading, and took up his residence there about 1870, coming to town three or four days a week to see patients. This plan, though apparently giving him some leisure, really entailed on him very severe exertion, which as age came on began to tell seriously upon his strength. For the last few years of his life he was much troubled with chronic cystitis, which was naturally aggravated by his railway journeys during the late severe winter. In the beginning of March last a small superficial patch of senile gangrene made its appearance on one toe, and although this did not extend beyond that spot, and only involved in the end that one toe, the pain and suffering attending it were more than his system, lowered by the incessant labour of a long professional life, could bear up against, and he succumbed on the 14th inst., to the great grief and regret of his family and numberless friends and patients.

As a practitioner, the late Mr. Bryant could well be called "an all-round man"; there was no department of practice with which he was not thoroughly conversant, and none of the more modern views of theory and practice were unknown to him. Bred up in the old school, he had great faith in the value of drug treatment, whilst leaving no stone unturned to benefit his patient in every other direction. His ingenuity in contriving means of relieving pain, and in the general management of the sick room, was of striking value to him. But probably the true key to his success as a practitioner was his devotion to the interests of his case. No trouble, no fatigue, no pains, were too great for him, if only he thought there was a chance of benefiting the sufferer; and this devotion was amply reciprocated by those he attended. Numberless instances of this admirable feeling, that ought always to exist between doctor and patient, have been shown since his illness, and many gratifying attentions have been paid to his memory by persons in every walk of life. His naturally cheerful disposition, always ready to look on the sunny side of things, made his presence at the bedside ever welcome; whilst in general society he could always make his mark, having a large fund of general information and anecdote. It is unfortunate that he has left behind him no written records of his vast experience as an obstetric physician, seeing that in that department, as well as in the care of children, he was more particularly successful. For some years he was surgeon to the Bucks Yeomanry, and was also consulting physician to the Home for Incurable Children.

The deceased gentleman leaves a widow and six children. His eldest son, Mr. John H. Bryant, is now medical officer of health at Gibraltar.

ERNEST BLAKER TURNER, M.B., C.M. ED., &c.

WE are indebted to Mr. J. G. Braden for the following particulars of the too short life of this young surgeon, who died at Lewes on the 19th inst., aged twenty-nine.

Mr. Ernest Blaker Turner first put on his professional harness ten months ago by undertaking the duties of resident surgeon to the Lewes Infirmary and Dispensary, where, during his short tenure of office, by his genial manner and kindly disposition, he endeared himself to all with whom he came in contact. He was the son of Mr. Nathaniel Blaker Turner, a surgeon who practised at Singleton, in Sussex, for forty years. He was not originally intended for the medical profession, having entered H.M. Civil Service by open competition, in which he served for some few years, subsequently joining the medical ranks and entering as a student at the Edinburgh University, where he qualified as M.B. and C.M. He was also a member of the Royal College of Surgeons of England. Mr. Turner possessed an observant mind and methodical habits, both of which qualities promised, had he been spared, to form a sound practitioner. Some weeks before his death declining health manifested itself, but, in spite of friendly advice, he kept on with his work till he literally fell at his post, unable longer to fight against undoubted symptoms of acute tuberculosis, which carried him off, after a week's confinement to his bed. His death has left but one feeling throughout the town—that of general sadness and regret.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their Primary Examinations in Anatomy and Physiology for the Diploma of Fellow at meetings of the Board of Examiners on the 21st, 22nd, and 23rd inst., and when eligible will be admitted to the Pass Examination:—

Ballance, H. Stanley, King's College Hospital.
Berry, Albert Edward, Owens College, Manchester.
Blacker, George Francis, University College Hospital.
Braine, Charles Carter, Charing-cross Hospital.
Calder, Frank, Bristol Medical School.
Clegg, Walter Thomas, Liverpool Infirmary.
Cobbett, Louis, St. Thomas's Hospital.
Collum, Archie Tillyer, Charing-cross Hospital.
Devereux, William Charles, Middlesex Hospital.
Douglas, Claude, St. George's Hospital.
Dukes, Thomas Archibald, St. Thomas's Hospital.
Farncombe, W. Furberville, St. Bartholomew's Hospital.
Francis, Alfred George, St. Bartholomew's Hospital.
Galloway, J., Aberdeen University and London Hospital.
Grey, T. Campbell, Bristol School of Medicine.
Johnson, Frederick, St. Bartholomew's Hospital.
Johnson, Raymond, University College Hospital.
Jones, Oswald Meredith, London Hospital.
Kenny, Alex. Symonds, King's College Hospital.
Luard, Hugh Bixbey, Cambridge and St. Thomas's Hospital.
Lucy, Reginald Horace, London Hospital.
Napier, Francis Horatio, St. Bartholomew's Hospital.
Redmayne, T., Cambridge and London Hospital.
Russell, R. Hamilton, King's College Hospital.
Spicer, W. Thos. Holmes, St. Bartholomew's Hospital.
Street, Ashton, Leeds and Cambridge University.
Teichelmann, Ebenezer, Queen's College, Birmingham.
Thomas, J. Llewellyn, St. Bartholomew's Hospital.
Thomas, W. Thelwall, University College Hospital.
Trechmann, Maximilian L., Edin. and St. Barthol. Hospital.
Vernon, A. Heygate, St. George's Hospital.
Wilkinson, George, Cambridge University.

ROYAL UNIVERSITY OF IRELAND.—At a recent meeting of the Senate the following Honours and Exhibitions were awarded:—

Third Examination in Medicine.—First Class Honours: J. Moore Hall, J. W. Wolfe. Second Class Honours: Eleonora Lilian Fleury; James Jackson.—Exhibitions: First Class (£30)—J. Moore Hall (disqualified by standing); J. W. Wolfe. Second Class (£20)—Eleonora Lilian Fleury.

At a public meeting of the University held last week the following degrees were conferred by the Vice-Chancellor:—

Doctor of Medicine.—J. St. John Annesley, J. Clifford (*in absentiâ*), J. H. Corcoran, D. Crowly, J. Hunter, G. Love, J. J. Lynch (*in absentiâ*), D. M'Kee, M. Moloney (*in absentiâ*), P. J. O'Brien, L. O'Clery, M. Semple, H. Smith (*in absentiâ*), and J. W. Wilson.
Bachelor of Surgery.—T. E. Dunne, W. R. Gore, J. J. Griffin, G. Love, M. Moloney (*in absentiâ*), and J. W. Wilson.
Bachelor of Obstetrics.—T. E. Dunne, W. R. Gore, J. J. Griffin, G. Love, M. Moloney (*in absentiâ*), and J. W. Wilson.
Diploma in Sanitary Science.—Charles F. Knight.

The names of those who obtained the degrees of Master of Surgery, Bachelor of Medicine, and Master of Obstetrics were published in last week's issue.

COLLEGES OF PHYSICIANS AND SURGEONS IN IRELAND: CONJOINT SCHEME.—The following candidates have passed the Final Examination for the Licences in Medicine, Surgery, and Midwifery:—

C. J. Hughes, P. G. Lee, Ronald M'Dougall, H. Dempster Mason, W. F. Rowantree, J. Searson, W. P. Shiel, J. H. Swan, and Florence N. Toms.

CAVENDISH COLLEGE, CAMBRIDGE.—An examination will be held on Tuesday, the 24th of July, and following days, according to the results of which it is intended to award eight scholarships of £30 a year, provided that candidates of sufficient merit present themselves. Candidates must be under eighteen years of age on the 1st of October, 1888, and may offer for examination one or more of the following subjects: Classics, mathematics, natural science, modern languages. The scholars elected will be required to come into residence at Cavendish College in October, 1888, and commence study for a tripos or the engineering course. Medical students may conveniently combine their medical work with the course for the Natural Science Tripos. It is also intended to offer in June, 1889, three scholarships of £30, to be competed for by students of the College who will then have resided not longer than one year. The College fee for board, lodging, and tuition is £25 for each of the three University terms, and £15 for residence (optional) in the long vacation. For further information, apply to the Bursar, Cavendish College, Cambridge.

PROHIBITION OF SACCHARIN IN BREWING.—The Lords Commissioners of Her Majesty's Treasury, under the powers conferred upon them by Section 5 of the Customs and Inland Revenue Act, 1888, have given notice that the use of the chemical or artificial extract or product known by the name of "saccharin" in the manufacture and preparation for sale of beer is prohibited until further notice. Any breach of this prohibition is subject to a penalty of £50.

THE "JOHN REID" MEDICAL PRIZE.—This prize, founded by Miss Mary Reid in memory of her brother, the late John Reid, surgeon, of Glasgow, is awarded for the best original research bearing on any of the departments of medical science conducted in one of the hospitals or laboratories of Glasgow. The prize, which is of the annual value of £25, was, at a meeting of the trustees held on the 17th inst., awarded for one year to Mr. Robert M. Buchanan Hillearn for an able paper on the Absorption of Amyloid Material and the Amyloid Change in Hodgkin's Disease.

POPLAR HOSPITAL FOR ACCIDENTS.—The annual festival dinner—the thirty-third—was held on the 17th inst., at the Holborn Restaurant. Mr. Henry Green (in the absence of Lord Norton) presided. He stated that the institution was never probably in a more efficient state than now, and the importance of maintaining that efficiency was strongly urged. The number of out-patients had increased from 5000 to 9000. Enlarged accommodation must be obtained, and a hope was expressed that a site outside the present building might be secured. Subscriptions amounting to £1349 were announced.

CORONERS' COURTS.—The St. Pancras Vestry has applied to the Metropolitan Board of Works for a loan of £4700 for the purpose of erecting a Coroner's Court. The question of Coroners' Courts was accordingly before the Board at its last meeting. The prevailing feeling of the members appeared to be that such courts should be more generally provided, and it was resolved that the opinion of the Attorney-General be obtained as to the legality of the application. In populous districts, at least, a suitable court for these inquisitions should be supplied.

YORKSHIRE ASSOCIATION OF SANITARY INSPECTORS.—This Association has memorialised Mr. Ritchie, the President of the Local Government Board, praying that provisions should be made, in addition to the clause in the Local Government Bill allowing compensation to any officer whose office shall be abolished, as follows: That the present system of appointment of sanitary officers be discontinued and the appointment transferred to the County Council. That, in the event of an officer becoming incapable, through bodily infirmity or otherwise, the County Council, or District Council, be empowered to award such a gratuity or pension as they may deem expedient, having regard to length of service and other conditions. That, in case of the death of any officer from zymotic disease, contracted in the discharge of his duties, the County or District Council have power to grant to his widow a sum of not less than one year's salary. That in all other respects the sanitary officers be subject, as at present, to the regulations of the Local Government Board set forth in the General Orders.

INFECTIOUS HOSPITAL NEAR BRISTOL.—The Horfield Local Board has, in conjunction with the Barton Guardians and the Stapleton Local Board, secured an eligible site, comprising three acres of land, on which to erect a hospital for infectious disease. The respective authorities will contribute towards the necessary outlay, and it is expected no time will now be lost to meet a pressing sanitary requirement.

THE NEW LUNATIC ASYLUM AT MENSTON.—On Sept. 1st the new asylum at Menston will be opened for the accommodation of pauper lunatics. It is designed to accommodate 1500 patients, and the estimated cost of the building and its accessories is not less than £350,000. This is the third establishment of the kind erected in the West Riding, those at Wakefield and Wadsley (Sheffield) having been respectively completed for use in 1819 and 1874.

BEQUESTS AND DONATIONS.—The late Mr. J. Bury Dasent of Warwick-road, Paddington, has bequeathed £30 to St. Mary's Hospital.—Mr. Alderman J. Fountain of Hull has left, on the decease of his daughter, £500 each to the Hull General Infirmary and Hull Dispensary.—The Belgian Burgomasters, recently on a visit to the Lord Mayor, have contributed £100 to the funds of the British Home for Incurables.—Mr. Denis Crofton has left £500 to the Adelaide Hospital, and £500 to the Cork-street Fever Hospital, Dublin.

SANITARY INSTITUTE OF GREAT BRITAIN. — At the annual general meeting, held at the Parkes Museum on the 16th inst., Professor W. H. Corfield in the chair, a report was presented by the Council on the work of the institute during the last year, and on the congress at Bolton in the autumn of 1887. The chairman gave an address, and the officers for the ensuing year were elected: President, the Duke of Northumberland; the trustees, Sir John Lubbock, Dr. B. W. Richardson, and Mr. Thomas Salt, M.P.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION. — The quarterly meeting of this Association was held at Bethlem Hospital, on Wednesday, May 16th, at 4 P.M. The meeting, which was numerously attended, was presided over by Dr. Needham. Dr. Maudsley communicated "Some Remarks on Crime and Criminals," which was followed by a discussion, in which Drs. Hack Tuke, Rayner, Fletcher Beach, and Rogers, and Mr. Herbert Stegshen took part. A special meeting of the Association subsequently took place, at which the subject of pensions was discussed, the matter being ultimately referred to the Parliamentary Committee.

MR. BARNARDO'S HOMES.—The twenty-second anniversary of these homes was held on the 23rd inst., the Earl of Meath presiding. The report showed that the Society has now thirty-four institutions, and that since its foundation in 1866 it has been the means of rescuing 10,884 boys and girls. The number of children who emigrated during the year was 406, and 1103 were sent to situations or restored to their friends in the United Kingdom. The year's receipts amounted to £103,091 and the expenditure left a debt of £7961. The report was adopted on the motion of Lord Kinnaird, seconded by the Rev. E. A. Stuart, M.A.

UNIVERSITY COLLEGE.—On the 17th inst. Professor Erichsen, President of the College, presided at the annual distribution of prizes of the Faculty of Medicine, the ceremony being performed by Dr. John Marshall, President of the Medical Council. The annual report stated that 322 students, of whom 78 were new students, had attended the classes of the Faculty and the hospital, these numbers showing a diminution of 15 on the total and 26 in the new students. The gold medal for surgery was gained by Mr. Michael G. Foster, and the other principal prize winners were Mr. H. M. Fernando, who gained the Aitchison Scholarship of £60 (tenable for two years), the gold medal for medicine, and the Tuke medal in pathology; Mr. G. W. Sutherland, winner of the Bruce medal, and the silver medal (equal Mr. E. Wills); Mr. E. W. Selby, who won the £100; Mr. A. G. Levy the £60; and Mr. W. L. Andriezen, the £40 exhibitions of the entrance series. Mr. W. M. Stevens won the gold medal in the senior class of physiology and the gold medal in the senior class of anatomy. The gold medal in practical chemistry was gained by Mr. B. L. Abrahams, the Fellowes gold medal in clinical medicine by Mr. G. R. Murray, the Liston gold medal in clinical surgery by Mr. W. B. Ransom, the Erichsen prize for practical surgery by Mr. G. B. M. White, and the prize for dental surgery by Mr. E. O. Turner.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ANDERSON, J., M.D. St. And., L.R.C.S.Edin., and L.M., has been appointed Visiting Physician to the Seamen's Hospital, Greenwich.

ANDERTON, J. E., L.R.C.P.Ed. and L.M., M.R.C.S., has been reappointed Medical Officer of Health for New Mills Urban Sanitary District, Derbyshire.

BIDWELL, L. A., M.R.C.S., L.S.A., has been reappointed House-Surgeon to St. Thomas's Hospital.

BRISTOWE, H. C., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant in the Ear Department of St. Thomas's Hospital.

BULSTRODE, H. T., M.B., B.C.Cantab., L.R.C.P., M.R.C.S., has been reappointed Clinical Assistant in the Throat Department of St. Thomas's Hospital.

BURY, H. T., L.R.C.P.Lond., M.R.C.S., has been appointed Assistant Medical Officer to the Renfrew-road Workhouse of the Parish of St. Mary, Lambeth.

CALVERT, J. T., M.B.Lond., L.R.C.P., M.R.C.S., has been reappointed Non-Resident House-Physician to St. Thomas's Hospital.

CLARKE, WILLIAM F., M.B., B.S.Lond., M.R.C.S., has been appointed House-Surgeon to the Newport and County (Monmouth) Infirmary, vice Basset, resigned.

COOK, S. B., L.R.C.P., M.R.C.S., has been reappointed Assistant House-Physician to St. Thomas's Hospital.

COOKE, C. W., L.R.C.P., M.R.C.S., has been appointed Assistant House-Surgeon to St. Thomas's Hospital.

CRISP, E. H., L.R.C.P., M.R.C.S., has been reappointed Clinical Assistant in the Throat Department of St. Thomas's Hospital.

DAVIS, A. P., M.R.C.S., has been appointed Medical Officer and Treasurer to Court Treffry, A. O. F., Fowey, vice A. A. Davis, deceased.

FARR, E. A., L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer for the Third District of the Andover Union.

FLEMING, A. J., M.D.Q.U.I., M.Ch., L.R.C.S.I., has been appointed Medical Officer of the First District and the Workhouse of the Church Stretton Union.

GOODDY, E. S., L.R.C.P., M.R.C.S., L.S.A., has been reappointed Ophthalmic Clinical Assistant to St. Thomas's Hospital.

HARDCASTLE, N., M.R.C.S., and L.M., L.S.A., has been reappointed Medical Officer of Health for Benwell and Fenham Urban Sanitary District, Northumberland.

HOBHOUSE, B., M.B., B.S. Oxon., M.R.C.S., has been reappointed Resident House-Physician to St. Thomas's Hospital.

JAMES, C. H., L.R.C.P., M.R.C.S., has been appointed Assistant House-Surgeon to St. Thomas's Hospital.

LOTZ, H., L.R.C.P., M.R.C.S., has been reappointed Clinical Assistant in the Ear Department of St. Thomas's Hospital.

LOVEGROVE, C., M.D., L.R.C.P., has been appointed Surgeon to No. 7 Section of the Manchester Ship Canal, and Consulting Surgeon from Salford to Lymm.

LUARD, H. B., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been appointed Resident House-Physician to St. Thomas's Hospital.

MACGREGOR, D. A., M.B.Edin. and C.M., has been appointed Medical Officer for the High Hoyland Division of the Penistone District.

MACKINTOSH, A., M.D.Glasg., L.F.P.S.Glasg. and L.M., has been re-appointed Medical Officer of Health for the Dronfield and Clay-lane Urban Sanitary District, Derbyshire.

NEWSHOLME, ARTHUR, M.D.Lond., D.P.H.Lond., has been appointed Medical Officer of Health for the Borough of Brighton.

PARRY, J. WILLIAM, L.R.C.S.Ed., L.R.C.P.Ed., L.F.P.S.Glas., has been appointed Medical Officer for the Holywell Workhouse, vice Hamlet Ll. Davies, M.B., C.M., resigned.

PULLAN, H. W., M.R.C.S., L.F.P.S.Glas., has been appointed Medical Officer for the Epworth District of the Thorne Union.

ROBERTS, SIDNEY M. P., M.A., M.B., B.C.Christ's Coll. Camb., M.R.C.S., has been appointed Senior Physician to the Sheffield Public Hospital, vice W. R. Thomas, M.D., M.R.C.P., resigned; and Lecturer on Medical Jurisprudence to the Sheffield School of Medicine.

RYAN, W. H., L.K.Q.C.P.I. and L.M., L.R.C.S.I., has been appointed Medical Officer for the Third District of the Pottersbury Union.

SANSOM, H. A., L.R.C.P., M.R.C.S., has been reappointed Clinical Assistant in the Skin Department of St. Thomas's Hospital.

SMITH, J. P., L.R.C.P. Edin. and L.M., L.R.C.S. Edin., has been appointed Medical Officer of Health for the Mutford and Lothingland Rural Sanitary District, Suffolk, vice Smith, resigned.

SOLLY, R. V., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant in the Skin Department of St. Thomas's Hospital.

SPENCER, M. H., M.A., M.B., B.C.Cantab., L.R.C.P., M.R.C.S., has been appointed Ophthalmic Clinical Assistant to St. Thomas's Hospital.

STABB, E. C., L.R.C.P., M.R.C.S., L.S.A., has been reappointed House-Surgeon to St. Thomas's Hospital.

STARLING, E. A., M.B. Roy. Univ. Irel., M.Ch., L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer for the First District of the Tonbridge Union.

TWINING, A. H., M.R.C.S., L.S.A., has been reappointed Medical Officer of Health for the Kingsbridge Rural Sanitary District, Devon.

WHEATON, S. W., M.B.Lond., L.R.C.P., M.R.C.S., has been appointed Resident Accoucheur to St. Thomas's Hospital.

WILSON, A. C. J., L.R.C.P. Edin. and L.M., M.R.C.S., has been re-appointed Medical Officer of Health for the Penistone Division, Yorkshire.

WINDLE, JOHN T., M.D.Aber., has been appointed Certifying Surgeon (under the Factory Acts) for Ovenden and District, vice J. Hodgson Wright, M.R.C.S., appointed to the Halifax District.

WOAKES, ARNOLD, M.R.C.S., L.R.C.P., has been appointed Surgeon to the London Throat Hospital, vice Ed. Law, resigned.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

BRECON INFIRMARY.—Resident House-Surgeon (unmarried), who will also undertake Dispensing. Salary £100 per annum, with furnished apartments, fire, and gas.

BUCKS COUNTY LUNATIC ASYLUM.—Assistant Medical Officer. Salary £100 per annum, with board and furnished apartments in the asylum.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—Assistant Physician.

DARENTH SCHOOLS FOR IMBECILE CHILDREN, Dartford, Kent.—Assistant Medical Officer. Salary £120 per annum, rising £10 annually to £150, with board, furnished apartments, and washing.

FOLKESTONE FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Doubly qualified Medical Man. Salary £150 per annum (exclusive of accouchement fees), with unfurnished apartments at the office of the Association, free of rent, rates, and taxes.

FULHAM UNION.—Resident Medical Superintendent of the Infirmary, and Medical Officer of the Union Workhouse. Salary £350 per annum, with residence (partly furnished), fuel, light, and washing.

IDA CONVALESCENT HOME, Cookbridge.—Resident Medical Officer. Board, washing, and lodging in the home provided. No salary, but an honorarium of £35 will be given at the end of six months, the period for which the appointment will be made.

KING'S COLLEGE, London.—Assistant Surgeon.

LONDON TEMPERANCE HOSPITAL, Hampstead-road, N.W.—Surgeon to take charge of both in- and out-patients.

NORTH LONDON CONSUMPTION HOSPITAL, Hampstead and London.—Resident Medical Officer. Honorarium £40 per annum, with board and rooms in the hospital.

PARISH OF CLAPHAM.—Medical Officer of Health. Salary £75 per annum, rising by annual increments of £5 each to a maximum of £110 per annum.

QUEEN'S COLLEGE, Birmingham.—Assistant Medical Tutor.

ST. PETER'S HOSPITAL FOR STONE AND URINARY DISEASES, Henrietta-street, Covent-garden.—House-Surgeon for six months. Honorarium 25 guineas, board, lodging, and washing.

SHEFFIELD GENERAL INFIRMARY.—House Surgeon. Salary £120 per annum, with board, lodging, and washing, with a prospective advance of £10 per year for the second and third years.—Also Assistant House Surgeon. Salary £80 per annum, with board, lodging, and washing, with a prospective advance of £10 per year for the second and third years.

WELLINGBOROUGH AND DISTRICT MEDICAL INSTITUTE.—A doubly qualified medical man to take charge of the Institute, and attend on members, their wives, and families. Salary £280 per annum (exclusive of accouchement fees), in addition to dwelling-house, surgery, coachhouse, and stable, free of rent, rates, taxes, and repairs.

WESTERN FEVER HOSPITAL, Fulham, S.W.—Assistant Medical Officer (Clinical Assistant). Remuneration, board, apartments, and washing.

Births, Marriages, and Deaths.

BIRTHS.

CANE.—On the 21st inst., at the Mansion House, Peterborough, the wife of Leonard Cane, M.D.Lond., B.S., of a son.

HARTLEY.—On the 14th inst., at Stone, Staffs., the wife of Horace Hartley, M.R.C.S., L.R.C.P., of a daughter.

WRIGHT.—On the 20th inst., at Norfolk House, Southsea, the wife of J. Brampton Wright, M.D., of a daughter.

MARRIAGES.

DRUITT—CUNNINGHAM.—On the 2nd ult., at St. John's Church, Wagga Wagga, New South Wales, Lionel Druitt, Esq., M.D., youngest son of the late Dr. Robert Druitt, of Strathmore-gardens, Kensington, London, to Susan Cunningham, eldest surviving daughter of Andrew Murray, Esq., of Crieff, Scotland.

LAING—MASON.—On the 17th inst., at the Cathedral, Edinburgh, Dr. J. H. A. Laing, M.B., C.M., son of the late John Laing, Esq., of Slitrig House, Hawick, to Florence, daughter of Samuel Lack Mason, Esq., of St. Helen's, West Coates, Edinburgh.

DEATHS.

ARMITAGE.—On the 21st inst., at Colva-street, South Highgate, Susannah Armitage, the wife of John Story Armitage, L.D.S.R.C.S.

COLES.—On the 17th inst., at Bourton-on-the-Water, Gloucestershire, William Carey Coles, M.D.Ed., M.R.C.P. Lond., F.R.C.S. Eng., retired Surgeon-Major, H.M. Indian Army (Bombay), in his 71st year.

FITZGERALD.—On the 26th ult., in Ceylon, Surgeon-Major Edmund Maurice Downing FitzGerald, M.D., H.M.'s Medical Staff, beloved son-in-law of Jonas Leake, Esq., M.D., of Harl's-court-road, Kensington, aged 42.

OLDHAM.—On the 11th inst., at 73, Derby-square, Douglas, Isle of Man, George St. John Oldham, M.D., M.R.C.S.E., L.A.H., of Castlewell, co. Dublin, aged 73.

TURNER.—On the 19th inst., at Lowes (after a short illness), Ernest Blaker Turner, M.B., C.M.Edin., M.R.C.S., eldest son of the late Nathanael Blaker Turner, of Singleton, Chichester, aged 29.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, May 24th, 1888.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia tn Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
May 18	29·79	S.W.	59	57	119	77	54	·12	Raining
,, 19	29·71	S W.	70	62	113	77	59	...	Hazy
,, 20	30·07	S.W.	62	54	114	69	50	...	Fine
,, 21	30·41	E.	62	54	116	71	50	...	Fine
,, 22	30·38	N.E.	57	51	76	59	49	...	Cloudy
,, 23	30·39	N.E.	59	52	117	70	47	...	Fine
,, 24	30·38	N.E.	53	49	100	60	46	...	Cloudy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

FRENCH ECONOMY IN FEES TO EXPERTS.

THE Montpellier courts of justice have arranged to cut down the fees claimed by three professors of the Faculty of Medicine for medical services as experts to two-thirds of the amount claimed. This short-sighted economy has been met by the professors referred to by a dignified refusal to render the law courts any further assistance. Consequently, when the evidence of a medical expert is required in future, the judges will have to content themselves with that of persons of an inferior position in Montpellier, or else to obtain experts from a distance at probably a much higher rate of remuneration.

Quercus.—The use of such a title is improper, and probably illegal. But the expression is not included in the 40th Clause of the Medical Act, and we should not be sanguine of success in a prosecution for the false use of a medical title.

Dr. Alfred Carpenter's letter is, owing to its length and the great pressure on our columns, unavoidably held over until next week.

Surgeon-Major.—Yes.

HOLIDAY HOMES.

To the Editors of THE LANCET.

SIRS,—Often indebted as the Ragged School Union has been, and is, to members of the medical profession in its work among the London poor, I take the opportunity of asking you to allow me to further enlist their sympathy on behalf of our Holiday Homes, in the belief that it will meet with a liberal response. The object of this branch of our work is to give a fortnight's holiday in the country to the poor children of the London Ragged Schools. The necessity of such a respite from their ordinary life will scarcely be questioned by such authorities on life and its needs as are your readers. We receive help, and should like to receive more, in many ways. Some of our friends have built and endowed Holiday Homes; others specially rent houses, and in them care for the children; not a few receive the children into their own homes, or board them with respectable families. We also receive gifts—none are too large or too small—of money, boots, and clothing for the children. As any attention given to the condition of the poor indirectly aids us in this and other branches of our work, may I be allowed to conclude by thanking THE LANCET and its readers for having so often shown the need for the better housing and nourishment of the poor. All testimony on those subjects has a value; but coming from you and your readers, it carries with it the weight of an authority based on knowledge not always at the command of those outside the medical profession.

I am, Sirs, yours obediently,

Ragged School Union, 13, Exeter Hall, W.C. JOHN KIRK, Secretary.

A METHOD OF TREATING DECAYED TEETH, BY W. H. ROLLINS.

"THIS treatment avoids the glitter of metallic fillings in labial cavities, and the material used is a low conductor of heat. ..... The method adopted is to mould a coloured vitreous material to the shape of the cavity. After excavating, a fac-simile of the cavity is made by electricity in copper .....coated with gold foil." Mr. Rollins then gives a formula for the preparation of the porcelain or vitrine. "A regular temperature is necessary to properly imbed the vitrine in the tooth (natural)." Three instruments for this purpose are described, the third and most useful being an electric thermo-generator. The paper of which the above is an abstract was sent to us by Mr. W. H. Rollins in 1880, but, not being of general interest to our medical readers, was "crowded out." The same idea, however, has recently been reproduced, and the author wishes to be acknowledged as the originator, or at any rate to claim priority. Of the practical utility of the method advocated there is considerable doubt, although it displays great ingenuity.

A Fellow or an F.R.C.S. will see by reference to our columns that our view of the matter is in accord with his own.

GIBSON AND WIFE *v.* JEFFRIES AND HILLS.

To the Editors of THE LANCET.

SIRS,—May we appeal to the readers of THE LANCET on behalf of Messrs. W. C. Jeffries and A. P. Hills, the defendants in an action tried last July at Guildford before Mr. Justice Cave, and reported in your issue of Aug. 13th, 1887? Damages to the amount of £500 were then sought to be recovered on the ground of alleged negligence and unskilfulness in the use of forceps during the confinement of Mrs. Gibson, one of the plaintiffs. The jury found for the defendants, and no medical man can read the report of the trial without feeling that the action never ought to have been brought, and that any practitioner who applies the forceps and accidentally ruptures the perineum, or any medical man who is compelled by illness to employ a locum tenens, is liable to be treated as were Messrs. Hills and Jeffries. Although costs were given against the plaintiffs, the latter not being in a position to pay, the defendants will have to pay their own law costs, amounting to £150, and are just now being pressed for payment by the solicitors. There are special and personal reasons known to us which make this a particularly deserving case; and while it is impossible to remedy the injury, anxiety, and worry through which Messrs. Hills and Jeffries have had to go, we hope that the law costs will be met by subscription among their medical brethren. We would further suggest that this is a case which would be most appropriately dealt with by small subscriptions from a large number of medical men, as it is one deserving such widespread sympathy.

The trustees of the Bower and Keats Fund have just contributed £50 towards the expenses of Messrs. Jeffries and Hills. A balance of £100 still remains to be provided.

Subscriptions will be acknowledged in THE LANCET, and may be sent to Mr. Keetley, 10, George-street, Hanover-square, W.

We are, Sirs, your obedient servants,

GRAILY HEWITT, M.D.
GEO. GRANVILLE BANTOCK, M.D.
F. DAWTREY DREWITT, M.D.
C. B. KEETLEY, F.R.C.S.

May 22nd, 1888.

THE LUCE FUND.

Amount acknowledged...	£24	3	0	Mr. R. Harrison	£1	1	0
Anonymous donor ...	50	0	0	Mr. R. Jones	1	1	0
Dr. Moore	5	0	0	Dr. W. A. Sachell ...	1	1	0
Dr. Wilson...	1	1	0	Mr. White	1	0	0
Dr. Glynn	1	1	0	Dr. Barron...	0	10	6

Further donations in aid of Mrs. Luce will be gratefully received by Dr. Caton, 31, Rodney-st., Liverpool, or by Dr. Sheppard, 64, Durning-road, Liverpool.

MERCURY IN DIPHTHERIA.

To the Editors of THE LANCET.

SIRS,—I quite agree with Mr. Pugin Thornton that mercury is the drug which will cure diphtheria. I treat this disease with small doses of an alcoholic solution of cyanide of mercury administered every fifteen minutes, with inunctions of oleate of mercury in benzoated lard, with alcoholic drinks *ad lib.* Since I adopted this treatment I have not lost a case out of fifty or sixty where my instructions were fully carried out.

I am, Sirs, yours truly,
N. O'D. PARKS, B.A., L.K.Q.C.P.I., &c.

Ashton, Rhode Island, May 9th, 1888.

CHRONIC SYCOSIS OF THE BEARD.

To the Editors of THE LANCET.

SIRS,—I desire to obtain from some of your readers a few hints as to the treatment of a case of chronic sycosis of the beard of about a year's standing. I have tried almost every remedy, and the only application which seemed to have a decidedly beneficial effect was Hebra's ointment. It now has lost its effect, even when combined with epilation. I will be very grateful if anything suggested will prove of benefit to my patient.

I am, Sirs, yours faithfully,
ENQUIRER.

May 3rd, 1888.

FRENCH SYMPATHY FOR THE GERMAN EMPEROR.

THE Berlin *Nazional Zeitung* publishes the letter of a celebrated Parisian surgeon to an eminent physician in the Prussian capital, to the effect that for several months throughout France there has, in various ways, been revealed a sentiment which, whatever may be the failings of the French people, proves that they are sound at heart. "I should find some difficulty in telling you," says the writer, "with what sympathetic solicitude my compatriots of every position have been reading the reports as to the German Kaiser. Nationality is forgotten; the year 1870 and its consequences are forgotten; in the Kaiser is seen only a man who, called from his birth to this world's highest honours, is yet forced by stern nature to bow to universal law, and to engage in a fight for health. We Frenchmen see the courage, the self-abnegation with which he maintains the struggle, see it with admiration and sympathy. We forget the daughter of the Queen of England, the German Empress, only to think of the wife, the mother who, with devotion and with an energy truly marvellous, stands by the dear patient, her husband. We shared the anxiety, the fears she must have undergone on those terrible days on which she had to consider the opportuneness, as well as the probable issue, of certain operations. We lived with her, though at a distance, through these hours of care, of anguish, of hope. These profoundly sympathising sentiments prevail in really extraordinary measure throughout the whole civic society of Paris, and you in Germany could not so much as guess with what rejoicing the more favourable reports of the last few days have been welcomed. Therefore it is that I make no attempt to restrain the impulse which bids me write to you and tell you, in the name of my whole neighbourhood, that we cherish the fondest hopes that the recovery of the husband and father may again gladden the wife and the children who, through long and fearful suffering, have been put to so stern a trial."

Dr. Pike (Malvern) is referred to a report on Filters published in THE LANCET of Jan. 7th of the present year.

PRETORIA AS A HEALTH RESORT.

To the Editors of THE LANCET.

SIRS,—I am reluctant to trespass upon your space to any extent, but I should like, in as few words as possible, to draw attention to a matter which concerns the profession as a body, and the knowledge of which may be of interest to many of your readers. I refer to the value of Pretoria, in the South African Republic, as a health resort.

Having resided in South Africa nearly twenty years, and during that period visited all parts of the country, both east and west, I have had ample experience of the hygienic conditions offered by the most important towns, and have carefully observed their more or less beneficial effects on consumptives and others who have visited them for the sake of restoration to health. Many of these localities have of late years become deservedly in repute for the permanent benefit which invalids from all parts of the world have received from their dry and equable atmosphere and genial surroundings. I am now living for a time in Pretoria, in the very centre of the thriving gold fields. Without the least disparagement to the salubrious air of other parts of South Africa, I can confidently affirm that it would be most difficult, if indeed it were possible, to find anywhere a more glorious and inviting climate or efficient remedial agent during six months in the year than is enjoyed in Pretoria from May to November. Added to this, I am in a position to say that not one individual health-seeker who, visiting these parts, has come under my notice, but has enlarged on the benign influence upon him or her of this almost model climate. The city of Pretoria, which stands about 4620 feet above the level of the sea, delightfully surrounded and well protected from noxious winds, is now very readily reached, with highly satisfactory attention on the road, by (1) taking rail from Port Elizabeth or Capetown to Kimberley, and thence by coach through Johannisburg to Pretoria; or (2), *vid* Natal, from Durban by rail to Ladysmith, and from there by coach to Pretoria, where the hotel accommodation is second to none.

Trusting these few remarks may receive the attention they deserve from those most interested,

I am, Sirs, yours faithfully,
J. W. STROUD, M.D.,
Senior Member of the Government Medical Board of Examiners, Pretoria.

Pretoria, South African Republic, April 12th, 1888.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. J. W. Moore, Dublin; Sir W. Stokes, Dublin; Mr. C. Hancock; Rev. H. M. Kennedy, Plympton; Mr. Lockwood, London; Mr. F. W. Burton, Cambridge; Mr. Shirtliff, Kingston; Mr. Keetley, London; Miss L. Moline, London; Mr. H. Benham, London; Mrs. Marshman, London; Dr. Warren Bey, Paris; Dr. Horrocks, Aldershot; Messrs. Leader and Sons, Sheffield; Dr. W. J. Sutherland, Salford; Messrs. Hill and Son, London; Mr. Kirk, London; Mr. D. Nutt, London; Dr. Percy Bolton, London; Mr. T. B. Browne, London; Messrs. Robertson and

Scott, Edinburgh; Dr. Bell Taylor, Nottingham; Messrs. Harris and Co., Birmingham; Dr. J. Braithwaite, Leeds; Dr. J. Adams, Barnes; Dr. R. Barnes, London; Dr. Tomkins, Leicester; Dr. D. Macalister Cambridge; Mr. Parkes, Ashton; Dr. Balfe, London; Dr. H. Tibbits, London; Dr. A. Carpenter, Croydon; Mr. May, Bath; Mr. B. F. Bour, London; Mr. White, Manchester; Dr. Sutherland, London; Mr. G. Meadows, Hastings; Mr. Hughes, Dolgelly; Mr. Torrance, Newcastle-on-Tyne; The Earl of Meath; Mr. Rath, Brighton; Dr. C. Kranshaw, St. Leonards-on-Sea; Dr. Dickson, Glasgow; Mr. W. H. B. Brook, Lincoln; Dr. H. Hardwick, Sheffield; Dr. Auld, Kelvinside; Mr. H. Kiallmark, London; Mr. Hollinshead, Birmingham; Dr. A. Davies, London; Dr. J. Thorowgood, London; Dr. Caton, Liverpool; Mr. C. Hawkins, London; Mr. W. J. Peddle, Edinburgh; Dr. B. Fenwick, London; Dr. J. R. Hamilton, Hawick; Madame Rowland; Dr. Pike, Malvern; Mr. J. A. Raye, Chatham; Mr. Braden, Lewes; Mr. H. B. Hewetson, Leeds; Dr. Sadler, Barnsley; Dr. Opie, Penge; Dr. Ridge, Enfield; Dr. Bronner, Bradford; Mr. Lewis, Birmingham; Dr. Hewitt, London; Mr. Coleman, Cardiff; Dr. MacCullum, Ayr; Mr. Walker, Aylesbury; Mr. Kimpton, London; Mr. Blair, Leeds; Mr. Foulerton, Chatham; Mr. Bowden, Ashton-under-Lyne; Mr. Gibbon, South Shields; Mr. Dickinson, London; Mr. C. A. Dean, Lancaster; F. R.; A Student; Surgeon-Major; Querens; The Writer of the Article in the *Verulam Review*; Brighton, London; O, London; A Fellow or an F.R.C.S.; Dorset County Hospital; Argosy, London; Secretary, Bristol Royal Infirmary.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Webber, Somerset; Mr. Price, Bolton; Mr. Frost, London; Messrs. Parwig and Co., London; Mr. Wormald, Manchester; Messrs. Masters and Son, London; Mrs. Brust, London; Mr. Fuller, Bath; Messrs. Hogg and Son, London; Mr. Henderson, Rickmansworth; Messrs. Wyley and Co., Coventry; Mr. Hartley, Thirsk; Mr. Gates; Messrs. Stent and Son, Guildford; Dr. Needham, Gloucester; Messrs. Grace and Co., Bristol; Dr. B. Taylor, Notts; Miss Moorhouse; Messrs. Gale and Co., London; Misses Butterworth, Eastbourne; Messrs. Philip and Son, London; Mr. Emerson, Biggleswade; Messrs. Isaacs and Co., London; Mr. Davenport, London; Messrs. Hazell, Watson, and Viney, London; Mr. Oldam, Liverpool; Mr. Mundy, Birmingham; Mr. Salmon, London; Mr. Crasweller, London; Mr. Heywood, Manchester; Mr. Kempe, London; Dr. Finch, Salisbury; Mr. Armitage, London; Mr. Hornibrook, London; Mr. Price, Cheshire; Mr. Aiken, Bradford; Mr. Tait, Birmingham; Mr. Smith, London; Cura, Brixton; Medical, Notts; Deaconess Townson, Chester; Q., Stockton; Semper Vigilans; Dr. McD., Southampton; E. H. W., Bristol; Express Dairy Co., London; G. R., London; L. M., Birmingham; Royal Mail Steam Packet Co., London; Medicus, Bristol; British Medical Temperance Association, London; Alpha, Wales; R. N., London; Jarvis Conklin Company; J. P., London; Box, Sheffield; Secretary, N.W. London Hospital; Alpha, Torquay; A. B., London; Beta, London; Bona Fides, London; B.Sc., London; National Sanatorium, Bournemouth; J. S. A., London; Gamma, London; M. J., London; Alpha, Liverpool; Sigma, Willesden; Locum, Liverpool; J. G., London; S. B., London; X. M. P., London; A. G., London; C. H., Surrey; J. G. B., London; J. H. F., Notts; Argus, London; C. W., London; Medicus, Reading; L.S.A., London.

Hertfordshire Mercury, Accrington Gazette, Surrey Advertiser, Morning Post, Herald and Weekly Free Press, Western Daily Mercury, Llandudno Advertiser, Sanitary Record, &c., have been received.

Medical Diary for the ensuing Week.

Monday, May 28.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M. and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 3 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.
ROYAL INSTITUTION.—3 P.M. Prof. W. Kühne: Uber die Entstehung der Vitalen Bewegung (On the Origin of Vital Movement). (In German.)

Tuesday, May 29.

GUY'S HOSPITAL.—Operations, 1.30 P.M. and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M.
ROYAL INSTITUTION.—3 P.M. Mr. Sidney Colvin: Conventions and Conventionality in Art.
WEST LONDON HOSPITAL.—5 P.M. Clinical Afternoon.

Wednesday, May 30.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-ST.—Operations, 9 A.M.; Saturday, same hour.
COLLEGE OF STATE MEDICINE (Theatre of the Chemical Society, Burlington House).—4 P.M. Inspector-General Dr. John M. Macdonald: The Organisms occurring in Fresh Water, and the Hygienic Importance of their Presence.

Thursday, May 31.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. T. G. Bonney: The Growth and Sculpture of the Alps.

Friday, June 1.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—9 P.M. Prof. J. A. Ewing: Earthquakes, and How to Measure Them.

Saturday, June 2.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. C. E. Turner: Count Tolstoi as Novelist and Thinker.

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Front Page ... ... per Line		0	1 0
Quarter Page		1	10 0
Half a Page		2	15 0
An entire Page		5	5 0

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NOTICE.—Advertisers are requested to observe that it is contrary to the Postal Regulations to receive at Post-offices letters addressed to initials only.

An original and novel feature of "THE LANCET General Advertiser" is a special Index to Advertisements on page 2, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to Advertisements appearing in THE LANCET.

Terms for Serial Insertions may be obtained of the Publisher, to whom all letters relating to Advertisements or Subscriptions should be addressed.

Advertisements are now received at all Messrs. W. H. Smith and Son's Railway Bookstalls throughout the United Kingdom and all other Advertising Agents.

Agent for the Advertising Department in France—J. ASTIER, 66, Rue Caumartin, Paris.

NOTICE.—JOHN JAMES CROFT is no longer Publisher, or in any way connected with the Publishing or any other Department of THE LANCET. All business communications should be addressed to "Publisher, THE LANCET Office, 423, Strand, London." Post Office Orders and Cheques should be crossed "London and Westminster Bank, St. James's-square."